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ABSTRACT

This curriculum guide for business office clerical/business office services provides instructional materials for Texas business course instructors. The following sections are included: (1) introduction; (2) keyboarding--skills, proofreading, and word processing; (3) filing--alphabetic, numeric, and electronic; (4) operating office machines--reprographics (layout and design, supplementary machines, copy machines, fluid duplication process, stencil duplication process, offset process, and desktop publishing), electronic calculator applications, and computer applications; (5) communicating effectively--traditional and electronic mail, telephone skills, written and language usage skills; (6) social implications of computer usage; and (7) closure. Each section is divided into units with guides for the teacher and guides for the student. The suggested unit lesson plan of the instructor's guide may contain the following information: essential element; allocated time; unit objective; student competencies; focus; domains; basic skills; content outline; suggested teacher activities matrix and answers; resources; handout(s); transparency master(s); and competency checklist, test, and answers. The unit student's guide may contain the following sections: unit objective; student competencies; focus; terminology; unit overview; activities; and skill building chart. Seven appendices are included, they provide: reference addresses; course descriptions; office education essential elements; suggested equipment list; steps in lesson plan development; course competency checklist; and a description of provisions for students with special needs. (NLA)

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BUSINESS OFFICE CLERICAL/ BUSINESS OFFICE SERVICES

TEACHER'S GUIDE

Prepared by

Jan Patton
Office Education Curriculum Specialist

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Robert K. Gordon, Office Education Program Director
Dorothy Baum, Office Education Program Specialist
David Childs, Office Education Program Specialist

Contract Writers
Irving ISD

Carol Clements, Irving High School
Nancy Martin, Stephen F. Austin Jr. High School
Carolyn Parsons, Nimitz High School
Helen Rose, Bowie Jr. High School
Barbara Sneed, Rockwall High School

Field Reviewers
North East ISD, San Antonio

Welta Burris, Vocational Supervisor

Bonnie Bole, Madison High School
Sandra Eppinger, Krueger Middle School
Faye Garza, Douglas MacArthur High School
Joyce Gragg, Winston Churchhill High School
Sandra Lane, Roosevelt High School
Billie LeStourgeon, Robt. E. Lee High School
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PREFACE

The curriculum for business office clerical/business office services was prepared to provide quality instructional materials for instructors of business office clerical/business office services courses in Texas. This guide serves as a basis for achieving the Office Education essential elements mandated by the Texas Education Agency.

This teacher's guide has been developed through a joint effort of the Texas Education Agency and the Educational Development and Training Center located on the campus of East Texas State University in Commerce, Texas.

The purpose of developing this guide is to provide office education instructors with a comprehensive teacher's guide that includes detailed units of instruction correlated directly to the essential elements. Suggestions and comments concerning this teacher's guide are requested and should be sent to the curriculum specialist at the Educational Development and Training Center.

ORGANIZATION AND UTILIZATION OF THE TEACHER'S GUIDE

A single teacher's guide has been developed for both the business office clerical and the business office services courses. This was done because of the similarities of the essential elements and to make it easier for a district to change the emphasis of these courses with a minimum of effort on the part of the teacher. It should be noted that individual curriculum guides have been prepared for each course so that each teacher of the course may adapt the guides and their lesson plans according to their district's specification.

Each instructional unit in the office education *Business Office Clerical/Business Office Services* teacher's guide is correlated to the essential elements. The basic components of the guide are the section pages which are considered the instructor's guide, the unit pages which are considered the student guide, and the appendices which are a collection of useful, pertinent information.

SECTION PAGES

Each section may be considered as the instructor's guide for the units that are covered within that section. The section provides the instructor with an opportunity to plan and prepare in advance for each unit in the section. The following are the components of the section.

Essential Elements

The specific essential elements covered in the section are provided.

Suggested Unit Lesson Plan

The suggested unit lesson plan consists of several elements. It is designed to serve as a basis for the preparation of daily and weekly lesson plans and to serve as a basic curriculum outline for each essential element.

> **The Objective Page**. Consists of the section and unit titles, essential elements, suggested number of hours, unit objective, student competencies, focus, domains and basic skills statements. It is designed to provide the teacher with data to use in daily and/or weekly lesson plans.
>
> **The Content Outline**. Is a broad outline of the contents of the overview. It is designed to give the teacher a preview of the major emphasis of the unit.
>
> **The Suggested Teacher Activities**. These suggested activities are basic areas that the teacher needs to address for every unit. The suggested teacher activities consists of several sections:

(1) The **General Teacher Preparation** activities suggest general considerations for unit preparation for all units. This section is the same for each unit.

(2) The **Teacher Presentation** includes setting the stage for the student for optimum classroom learning to take place. This section is the same for each unit.

(3) The **Reteach Activities** are presented so that they may be used with any unit. This section is the same for each unit.

(4) The **Specific Teaching Activities** component is extremely important, because it permits the teacher to have materials prepared in advance for the unit being introduced. Specific suggestions may be made as to bulletin boards, equipment needed, guest speakers, field trips, and materials or supplies that are needed. In addition, special instructions are provided for some of the activities and tests in the unit.

Activity/Competency Test Matrices for Domains and Basic Skills

Two matrices are provided for the teacher, listing which domains and basic skills the activities and competency test parts cover. This information may be used for better lesson planning.

Competency Tests

Evaluation is most successful when objectives are clearly stated in advance of learning experiences. The evaluation should be used to measure students' attainment of those specific competencies. Competency tests allow the instructor to make a judgment about student progress in relation to a predetermined standard. These standards should reflect those established by the business community for entry-level employees. It is important that students understand the criteria that are used to evaluate their competency in a given subject area.

Written competency tests based on the unit and student competencies are provided for each unit. These tests are provided to measure the students' understanding of the information covered in the unit overview. The parts of the competency test are queued to the essential elements and student competencies covered in the unit. Individual test items may be used as a pretest measure, as a review, or as an oral quiz to assist the teacher in spotting difficulties being encountered by students in their efforts to accomplish the unit objective. The instructor should construct additional test items for any objectives and information added to the unit. Other information on student evaluation is included in Appendix E--*Steps in Lesson Plan Development*.

The evaluation instruments in this curriculum guide may be used in the following ways:

Individualized Instruction--after reading the unit overview or having taken notes from the instructor, the student may complete the activities after brief instructions are provided by the instructor. After successfully completing the activities, the student is then ready for the competency test. If the test results show a weakness in a specific portion of the unit, the student should review that portion of the unit overview, complete reteach activities provided by the instructor, and retake the test.

Group Instruction--after participating in classroom discussion and completing the student activities, the student should be able to demonstrate mastery of items listed in the competency checklist for the unit, located in the section. The competency test can be used to measure students' progress toward meeting these competencies.

Remedial and Reteach Instructions--students who demonstrate a poor understanding of the subject matter may need remedial help. Selected reteach activities are provided in the Suggested Teacher Activities in the Suggested Unit Lesson Plan.

Answers to Activities and Competency Tests

Answers are provided for the activities and competency tests included in the unit. Because of the diversified programs, equipment, teaching styles, and student backgrounds, some activities and test questions must be evaluated by the instructor of the course; therefore, no answers are provided.

Resources

A list of suggested resources is provided at the end of most units or sections. They include: textbooks, practice sets, software, and media. A list of reference addresses is provided in the Appendix A.

Competency Checklists

A competency checklist is provided for each unit. The checklist can be used to assist the instructor in recording individual student progress toward the accomplishment of the unit competencies and in recording the mastery of the essential elements covered in that specific unit. Space has been provided to record progress for additional reteach activities and other assignments.

The checklists may be accumulated in a file and may serve as a portion of a student's competency profile. A cumulative course competency profile is found in Appendix F.

UNIT PAGES

The unit pages may be used in a wide variety of ways. Some suggested uses are:

(1) As a primary resource guide to get started for the beginning instructor.

(2) As an information base, along with additional textbook information, periodical supplements, and other background experiences.

(3) As an information base for students that may be reinforced with additional material and lectures.

Objectives/Competencies

The objective page states the goals of the unit, thus providing a sense of direction and accomplishment for both the student and the teacher. Two types of objectives are provided:

(1) Unit objectives, which state what the student would achieve upon completion of the unit.

(2) Student competencies, which state what the student is expected to do to assist himself/ herself in mastering the unit objective.

Each unit of instruction uses the "golden thread" approach. Each student competency is followed through in the unit overview, in the activities, in the competency test, and the competency profile. Generally, competency one corresponds to activity one and to the first part of the competency test. The "golden thread" approach allows the instructor to easily judge the student's mastery or nonmastery of each competency.

The competencies of the unit provide direction for the learning process; therefore, it is important for the instructor and the students to discuss the objectives prior to covering the information in the unit. This discussion will provide a common understanding between the instructor and student of the intent of the objectives.

It should be noted that when the essential elements were designed, they were only to be the minimum. Instructors should feel free to modify competencies to tailor the material to the needs of the students and the program. When competencies are added, corresponding information, activities, and evaluation should be designed and utilized.

Focus. A focus is provided for each unit. The focus tells "Why" the unit should be studied.

Terminology. A terminology list including definitions is provided, when appropriate, for most units.

Unit Overview. The unit overview is provided as a guide for instructors. It provides information that will specifically address the student competencies and, thus, the essential elements addressed. It should be noted that the overview is not designed as a total source, although it may be used that way. The unit overview is an attempt to condense available current information in order to provide content essential for meeting the cognitive (knowledge) objectives of the unit. The instructor will find that the unit overview serves as an excellent guide for presenting the background information necessary for developing any skills specified in the unit objective. Information may be presented in several ways:

(1) The instructor may use the unit overview as a guide for presenting the background knowledge necessary for students to complete the specific competencies and, ultimately, the unit objective; or

(2) Students may be allowed to use the unit overview as a basic text for a common information base. Information may be added through additional research or lecture notes.

Activities

Learning activities are keyed directly to the student competencies. They provide direction to study and also provide application and reinforcement of cognitive materials presented using the cognitive, psychomotor, and/or affective domains. An effort has been made to incorporate the following elements of the learning process: translation, interpretation, application, analysis, synthesis, and evaluation so that the learning styles of each student will be recognized.

The activity sheets may be given to the students for completion in class or may be used as homework assignments. Answers to the activities are included in the section pages for the individual unit.

The instructor should preview the activities prior to making student assignments to assure that information has been taught, and that all required supplies and equipment are available. Specific Teacher Activities are presented in the Suggested Unit Lesson Plan. Class time should be set aside for those activities that require group participation and other small group work projects. The instructor will need to develop methods by evaluating activities which require student participation.

APPENDICES

A wide variety of material is provided for the instructor in the appendices.

Appendix A: **Reference Addresses**

Provides the addresses for publishers, software vendors, microcomputer directories, electronic information services, magazines/periodicals/newsletters, services and reports, professional organizations, professional publications, and other business publications.

Appendix B: **Course Descriptions**

Provides a description of each of the office education courses.

Appendix C: **Office Education Essential Elements**

Provides a complete set of the office education essential elements.

Appendix D: **Suggested Equipment List**

Provides a suggested list of equipment and supplies for the course.

Appendix E: **Steps in Lesson Plan Development**

Provides the teacher with a suggested plan and format for developing lessons. In addition, it provides the teacher with Bloom's Taxonomy and suggested verbs to use with each level to achieve maximum results.

Appendix F: **Course Competency Checklist**

Provides the teacher with a competency checklist for the entire course which includes levels of student achievement, for the entire course.

Appendix G: **Special Needs**

Provides the teacher with suggested ways of modifying the office education curriculum for handicapped students. It also includes a section on determining students' learning styles.

BUSINESS OFFICE SERVICES
ESSENTIAL ELEMENTS

75.87

(d) **Coordinated vocational academic education (CVAE) business office services (1-2 units) shall include the following essential elements:**

(1) Concepts and skills involved in keyboarding. The student shall be provided opportunities to:

(A) demonstrate the skills involved in keyboarding;

(B) apply appropriate procedures for proofreading and correcting errors; and

(C) demonstrate and identify information processing concepts in keyboarding.

(2) Concepts and skills necessary for filing. The student shall be provided opportunities to:

(A) demonstrate procedures used in alphabetic and numeric filing; and

(B) identify procedures used in electronic filing.

(3) Concepts and skills related to the operation of office equipment. The student shall be provided opportunities to:

(A) identify the procedures and equipment used in completing layouts for reprographics;

(B) identify the procedures used in operating reprographic equipment;

(C) demonstrate the ability to prepare masters and to operate the offset press;

(D) demonstrate the ability to use desktop publishing features;

(E) demonstrate the ability to solve mathematical problems using the touch method on the electronic calculator/computer keypad; and

(F) demonstrate the ability to enter and retrieve data on a microcomputer.

(4) Concepts and skills necessary for processing mail. The student shall be provided opportunities to:

(A) identify the procedures involved in processing incoming and outgoing mail; and

(B) identify the procedures involved in transmitting mail electronically.

(5) Concepts and skills necessary for effective communications. The student shall be provided opportunities to:

  (A) develop effective listening skills;

  (B) identify and use proper business techniques when using the telephone;

  (C) prepare effective written communications; and

  (D) identify and use proper language usage skills in business.

(6) Concepts and skills necessary for securing and maintaining employment. The student shall be provided opportunities to:

  (A) demonstrate the skills necessary for job application and interview; and

  (B) apply human relations skills and the ability to work with others.

(7) Concepts and skills associated with the social implications of computers. The student shall be provided opportunities to:

  A. examine issues concerning responsible use of computer systems;

  B. understand the social ramifications of computer applications related to privacy, values, and reliability of systems.

BUSINESS OFFICE CLERICAL
ESSENTIAL ELEMENTS

75.87

(m) **Coordinated vocational academic education (CVAE) business office clerical (1-2 units) shall include the following essential elements:**

(1) Concepts and skills involved in keyboarding. The student shall be provided opportunities to:

(A) demonstrate the skills involved in keyboarding;

(B) apply appropriate procedures for proofreading and correcting errors; and

(C) demonstrate and identify information processing concepts in keyboarding.

(2) Concepts and skills necessary for filing. The student shall be provided opportunities to:

(A) demonstrate procedures used in alphabetic and numeric filing; and

(B) identify procedures used in electronic filing.

(3) Concepts and skills related to the operation of office equipment. The student shall be provided opportunities to:

(A) identify the procedures and equipment used in completing layouts for reprographics;

(B) identify the procedures used in operating reprographic equipment;

(C) demonstrate the ability to use desktop publishing features;

(D) demonstrate the ability to solve mathematical problems using the touch method on the electronic calculator/computer keypad; and

(E) demonstrate the ability to enter and retrieve data on a microcomputer.

(4) Concepts and skills necessary for processing mail. The student shall be provided opportunities to:

(A) identify the procedures involved in processing incoming and outgoing mail; and

(B) identify the procedures involved in transmitting mail electronically.

(5) Concepts and skills necessary for effective communications. The student shall be provided opportunities to:

(A) develop effective listening skills;

(B) identify and use proper business techniques when using the telephone;

(C) prepare effective written communications; and

(D) identify and use proper language usage skills in business.

(6) Concepts and skills necessary for securing and maintaining employment. The student shall be provided opportunities to:

(A) demonstrate the skills necessary for job application and interview; and

(B) apply human relations skills and the ability to work with others.

(7) Concepts and skills associated with the social implications of computers. The student shall be provided opportunities to:

(A) examine issues concerning responsible use of computer systems;

(B) understand the social ramifications of computer applications related to privacy, values, and reliability of systems.

SUGGESTED SCOPE AND SEQUENCE

BUSINESS OFFICE CLERICAL/BUSINESS OFFICE SERVICES

SECTION/UNIT		TITLE	WEEKS	HOURS
		INTRODUCTION	**1 - 1/2**	**3 - 5**
I.		**KEYBOARDING**		
	1	Keyboarding Skills	3 - 6	15 - 30
	2	Proofreading and Correcting Errors	1 - 1 1/2	10 - 12
	3	Word Processing Concepts	2 - 4	10 - 20
II.		**FILING**		
	1	Alphabetic and Numeric Filing	4	20
	2	Electronic Filing	1 - 2	5 - 10
III.		**OPERATING OFFICE MACHINES**		
	1	Reprographics		
		Module A: Layout and Design	2 - 4	10 - 20
		Module B: Supplementary Machines	1 - 1/2	2 - 4
		Module C: Copy Machines	1 - 2	5 - 10
		Module D: Fluid Duplication Process	1 - 2	5 - 10
		Module E: Stencil Duplication Process	1 - 2	5 - 10
		Module F: Offset Process	3 - 6	15 - 30
		Module G: Desktop Publishing	2 - 4	10 - 20
	2	Electronic Calculator Applications	3 - 6	15 - 30
	3	Computer Applications	2 - 4	10 - 20
IV.		**COMMUNICATING EFFECTIVELY**		
	1	Traditional and Electronic Mail	1 - 2	5 - 10
	2	Telephone Skills	1 - 2	5 - 10
	3	Written Communication Skills	3 - 6	15 - 30
	4	Language Usage Skills	3 - 6	15 - 30
V.		**SOCIAL IMPLICATIONS OF COMPUTER USAGE**		
	1	Social Implications	1	5
		CLOSURE	**1/2**	**3**

Approximately ten weeks should be set aside to cover the common essential elements, review, makeup work, and testing.

Note: You may choose not to utilize all the modules in the reprographics unit; however, they are listed for your convenience.

INTRODUCTION TO BUSINESS OFFICE CLERICAL/SERVICES

INTRODUCTION TO THE COURSE

This unit provides an introduction to the course of business office clerical/services. It includes an overview of the purpose, objectives, and course contents. Additional subjects such as classroom organization, management, and safety are also included.

INTRODUCTION TO BUSINESS OFFICE CLERICAL/SERVICES

INTRODUCTION TO THE COURSE

ESSENTIAL ELEMENT: None

ALLOCATED TIME: 3-5 Hours

UNIT OBJECTIVE: Students will develop an understanding of the purpose, contents, and organization of the course business office clerical/services.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Relate the purpose of business office clerical/services to office education, business, and industry.
2. Recognize the role of the youth organization relative to business office clerical/services.
3. Discuss course objectives, equipment, units, competencies, and evaluation measures.
4. Explain classroom organization, management, and safety.
5. Update study skills needed to reach realistic long- and short-range goals.

FOCUS: Students will be provided the opportunity to develop and use both academic and vocational skills that will be useful whether they are taking advanced courses or making the transition from high school to the world of work.

DOMAINS: Activities and competency tests have been designed to provide learning experiences utilizing the cognitive, psychomotor, or affective domains. Activities and competency tests are coded on the Activity and Competency Test Matrices.

BASIC SKILLS: Activities and competency tests have been designed to reinforce the basic skills of reading, writing, and/or mathematics. Activities and competency tests have been coded on the Activity and Competency Test Matrices.

CONTENT OUTLINE

- I. Purpose of course
  - A. Introduction to office education
  - B. Objectives of the course
  - C. Relationship of course to business
- II. Course overview
  - A. Classroom equipment
  - B. Units of instruction
  - C. Competencies
  - D. Evaluation
  - E. Classroom organization and management
  - F. Safety
- III. Study skills
  - A. Long- and short-range goals
  - B. Priorities
  - C. SQ3R system
  - D. Following directions
  - E. Improve memory
  - F. Test-taking techniques
  - G. Organization

SUGGESTED TEACHER ACTIVITIES

General Teacher Preparation

1. Preview unit.
2. Review unit objectives.
3. Make instructional analysis.
4. Assess student learning needs.
5. Decide on lesson domain: cognitive, psychomotor, or affective domain.
6. Select instructional materials based on instructional analysis and student learning needs.
7. Select instructional strategies based on lesson content and student learning needs.
8. Prepare lesson plans from the unit lesson.
9. Prepare additional instructional material.
10. Reserve necessary media and equipment.

Teacher Presentation

1. Present student objectives.
2. Establish rapport with students.
3. Review lesson objectives with students.
4. Relate lesson to prior or future learning.
5. When appropriate, encourage student interaction through questioning, discussions, or some other strategy.
6. Emphasize the value/importance of the unit or activity.
7. Allow time for closure of a lesson.

Reteach Activities

1. Identify area(s) of weakness from results of evaluation.
2. Select unit activities not previously used.
3. Use additional resources and/or create materials based on student learning needs.
4. Use a different teaching strategy in reteaching.
5. Retest.

Specific Teaching Suggestions

The purpose of this unit is to assist you with introducing the course to your students. The introduction is beneficial to both you and the students. It provides you with the opportunity to present any policies, procedures, expectations, and other relative information which enhance classroom instruction and operations. It establishes a working environment for the students and presents an overview for the year's work.

It is suggested that you add other subject matter and instructional materials relative to your teaching assignment. Because the purpose of this section is to introduce the course, student activities and evaluation measures are limited. Some of the teaching activities can be used to develop student activities. It is recommended that some method for assessing student learning be conducted.

1. Design a bulletin board showing the relationship of business office clerical or business office services to office education. A suggestion might be: "Under the Umbrella of Office Education." List cluster courses and specific courses, highlighting business office clerical or business office services.

2. Ask questions at the beginning of the course, such as:

    a. Why are you taking this course?

    b. What does the title "Business Office Clerical" or "Business Office Services" mean to you?

    c. What do you think the course content covers?

    d. What is vocational education?

    e. What is office education?

3. Show and discuss the transparency "Benefits of Office Education."

4. Show and discuss the transparency "Learning through Business Office Clerical" or "Learning through Business Office Services."

5. Ask students to write their perceived likes and dislikes of office occupations. Invite someone who works in an office or related field to respond. Inform the speaker in advance of the nature of the assignment. Secure a person with speaking abilities who projects a positive work image.

6. Post data on job market projections. Update periodically (throughout the year) with projections from different resources.

7. Invite a former office education student to discuss Business Professionals of America. Be sure to inform the speaker in advance what topic you want covered in his/her presentation. You may want to include a question-and-answer period.

8. Invite a former student who was a member of the youth organization to discuss the organization and answer questions.

9. Review youth conferences with students. Competitive event guidelines could be distributed and discussed.

10. Develop an orientation presentation on the office machine and/or equipment in the classroom. Disseminate a listing of the equipment and machines, including the name and the functions of each.

11. Review and/or demonstrate the office machines and equipment with the class.

12. Develop, disseminate, and discuss handouts covering classroom policies and procedures. Let students make suggestions for other policies.

13. Divide the class into groups. As a group assignment, ask students to add to the list of safety precautions. Discuss results.

14. Invite a guest speaker who is involved with safety measures from: fire department, police department, personnel director, or safety engineer.

15. Distribute the terminology page. Review the list with the students. Ask that they add to the list any terms which they do not understand. Periodically review the lists with the students. One suggestion is that students identify the term and see if one of the class members knows the meaning.

16. Invite an office worker to speak to the class on the importance of job competency.

17. Show a film relative to one of the topics: work world, fire precautions, or others.

Business Professionals of America Information:

This portion will provide the students with a working knowledge of the history, goals, and purpose of Business Professionals of America. Students will be introduced to the procedures and potential for being a contestant or officer candidate at the local or state leadership conferences. Students will be able to:

1. Possess general knowledge concerning the history of Business Professionals of America.
2. Identify dates of importance to Business Professionals of America.
3. Name the colors of the organization.
4. Explain and discuss important goals of the organization.
5. Memorize the pledge of Business Professionals of America.
6. Understand the procedures for entrance to the state leadership conference and the various categories for associate members.

Business Professionals Information (Continued)

1. **Bulletin board:** At the beginning of the year, a very simple bulletin board might be used to encourage students to join Business Professionals of America. The theme of the bulletin board might be worked around the city in which the state contest will be held. You might want to fill the board with artifacts, pictures, and brochures from that city. The simple caption "See You in ______" is sufficient. For example, for San Antonio, use a sombrero with pictures of the Alamo, Sea World, etc. For Corpus Christi, use a beach towel, mats, children's bathing suits, swim fins, etc.

2. Distribute Handout 1 and Handout 3 on history, purposes, and goals.

3. Prepare and use the transparency on history (TM-4).

4. Distribute Handout 2 on Business Professionals of America.

5. Invite, as guest speakers to your class, former students who particularly enjoyed Business Professionals of America. Ask these students to relate their experiences to the group with pictures of activities, if at all possible.

6. Prepare Handout 4 for competitive events. You may wish to add to this handout or make changes.

7. To reinforce writing skills, have students do the following as a team assignment. Write one paragraph on one of the following topics:

   Merits of joining a vocational club
   How can membership affect your future?
   What projects should be considered this school year, and why?

8. Have students design a one-page flyer for recruitment purposes, including the emblem, logo, etc.

Study Skills Information:

This portion of the unit will allow students to make decisions, establish goals, successfully organize school materials, and understand good study habits. It will assist students to:

1. Set long-range goals for himself/herself.
2. Set short-range goals.
3. Organize notebook and school materials effectively.
4. Know specific techniques for reading assigned material.
5. Have specific memory techniques.

6. Have specific test-taking skills.

You may wish to use the success ladder TMs for students to set goals. A blank one has also been provided so you can duplicate them for your students.

1. Prepare a bulletin board on study skills--pictures of honor roll students, report cards from excellent students; these with the caption "How do they do it?" Another approach includes using pictures of beautiful homes, fancy cars, etc., at the top of the bulletin board, with a student's picture at the bottom. This caption could read, "If you don't know where you're going, how will you know when you get there?"
2. Select a reading assignment from a textbook which the majority of your students will be using this year. Duplicate copies for each student. Prepare a brief pretest on the reading assignment. Prepare a complete test on the reading assignment, to be given at the conclusion of the study.
3. Prepare transparencies.
4. Prepare goals sheets.
5. Duplicate handouts.
6. Discuss the following terms:

Notebook System	System for organizing school work with a three-inch binder as the tool.
SQ3R	Refers to the method of studying and reading material in which the reader first surveys the entire assignment and then makes up questions concerning the titles or headings in the assignment. Next, the reader reads the material carefully. After reading, the next process involves reciting or answering, either on paper or mentally, the questions which have been raised about the material. Finally, the reader reviews the notes that may have been taken on the material, or mentally reviews the entire assignment.

S	Survey
Q	Question
R	Read
R	Recite
R	Review

7. Have students bring their notebooks to class, and check to see that all materials are properly in place. Award bonus points for those notebooks that are correct.

8. As a possible fund-raising activity, have your students design assignment sheets to be used for all classes. These could be printed on the photocopier and sold to anyone in the school. This will reinforce the idea of the notebook and the necessity for writing down assignments.

9. Prior to any test, ask students to make out a test of their own. After taking the "real" test, they should be able to see how well they can "outguess" the teacher.

10. Methods for using the SQ3R system

    - Give a pretest on a section of a textbook all of your students will be using this year; for example, history, a story in English, etc.

    - Print the three- to five-page section from the textbook so that everyone has a copy.

    - Using the SQ3R system, have all students analyze and take notes on the textbook portion. This might be done in class together.

    For example: Students would first read all topic headings and generally survey the material. Next, they would make up questions about the material they are to read. Then, they would read the assignment. At the conclusion of the reading, students should recite the material to themselves, making sure they can answer all of the questions previously raised. Finally, they could review any notes they took on the material.

11. Give a brief, teacher-made test on the material they have just completed.

HANDOUT 1: INFORMATION SHEET

A brief history lesson!

With the passage of the Vocational Education Act of 1963, all students enrolled in vocational classes were required to participate in youth leadership activities. This is done through the use of vocational clubs. In 1966, three states (Kansas, Iowa, and Wisconsin) formed the Vocational Office Education Clubs of America. As more and more states joined the national organization, a national office was established in Columbus, Ohio, in 1971. The first full-time executive director was employed in 1973.

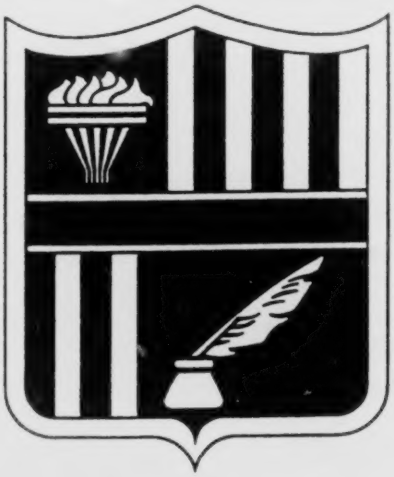
In Texas, students in CVAE programs organized their own club in 1976, which was called Vocational Office Careers Clubs of Texas. In 1988, this group voted to join as an associate division and became part of Business Professionals of America. After a very successful first year, the new associate division won on the national level in several areas of competition.

HANDOUT 2: BUSINESS PROFESSIONALS OF AMERICA

COLORS: Navy blue, tan, and red

OFFICIAL TAGLINE: **"Today's students, tomorrow's business professionals"**
Used in all printed materials in conjunction with the name.

PLEDGE: We are met in a spirit of friendship and goodwill as we prepare for productive lives in business and office careers. We work together to develop professionalism and leadership through Business Professionals of America and pledge our loyalty to our nation.



EMBLEM: The four points of the Business Professionals of America emblem stand for Ambition, Leadership, Sociability and Poise. The shield itself stands for the honor and dignity of the office profession. The quill and inkwell represent the stability of the office through the ages. The stripes represent direction; the torch signifies the ambition of the members as they strive to achieve goals to bring recognition to themselves and to our national organization.

HANDOUT 3: GOALS OF BUSINESS PROFESSIONALS OF AMERICA

1. **To develop student leadership**. By participating, planning, serving as officers, conducting meetings, and cooperating with fellow students, coordinators, and teachers, students can develop their leadership qualities.

2. **To improve poise, sociability, attitude, and tact**. Members of this organization improve their social graces by taking an active role in office, classroom, and social activities. Many of the students enrolled in these programs have not previously had the opportunity to participate in an organization. Business Professionals of America gives them the opportunity to acquire a sense of belonging for the first time.

3. **To develop vocational competencies in business occupations**. Vocational competence means being qualified to enter the world of work with a job skill and a certain amount of confidence in one's ability to perform that job. Students in Business Professionals of America are expected to be able to perform at least one job competently and effectively. Of course, their training is more comprehensive than this.

4. **To promote better understanding at local, state, and national levels.** Student participation and fellowship at all levels promotes better programs and provides these students with a knowledge of the people, programs, and activities that are being carried out elsewhere.

5. **To promote student ambition for useful purposes**. Students learn the value of their own personal ambition and derive satisfaction from helping others and from serving.

6. **To learn to plan effectively**. Everyone needs to know where he/she is and where he/she is going. Planning is essential to all successful activities.

7. **To develop an enthusiasm for learning and for remaining knowledgeable in the office held**. In these days, graduating high school seniors can expect to change their major occupation three times. Therefore, enthusiasm for learning is absolutely essential. Students are made aware of our changing society and are taught the necessity of constantly updating their knowledge.

8. **To develop confidence and a spirit of competition**. People are competing during their entire lifetimes. Competitive events create excitement and stimulate and facilitate learning and advancement.

9. **To learn to get along with others**. Even though an individual may have skill and ability, he/she cannot get a job and keep it if he/she is unable to get along with fellow workers.

10. **To develop loyalty through esprit de corps**. Everyone needs pride in his or her organization if the organization is to be successful and of benefit to society.

11. **To understand and promote business**. Our "quiet" President, Calvin Coolidge, remarked, "The business of America is business." Our American capitalistic economy makes possible one of the highest standards of living in the world. Business Professionals of America students are proud to be part of this great business world and to be able to help promote it.

HANDOUT 4: COMPETITIVE EVENTS

The competitive events program is an integral part of the Business Professionals of America. This program has been developed to provide vocational business and office students with the opportunity:

- to demonstrate occupational competencies;
- to develop and demonstrate knowledge, skills, and attitudes;
- to develop and demonstrate leadership and human relation skills;
- to demonstrate good competitive spirit; and
- to receive recognition.

An associate division member may enter one individual specialized event, one specialized team event, one duplicating project, and unlimited general events.

Specialized competitive events

Students will demonstrate skills, knowledge, and/or attitudes in leadership and other specialized areas related to business and office careers.

Individual duplication contest

Students will show their ability to design, organize, balance, align, and print material on respective duplicating machines. A chapter may enter one spirit duplicator job; two offsets, provided they are in different categories; and two stencils, also provided they are in different categories.

General competitive events

Students will demonstrate general knowledge related to business and office careers. A chapter may have an unlimited number of student entries.

HANDOUT 5: SPECIFIC MEMORY TECHNIQUES

Seven proven ways to remember anything!

1. Write it down.
2. Ask a friend to remind you.
3. Wear your watch or rings in a different way (the old "tie a string around your finger" idea).
4. Make up a formula or sentence. (Remember A C E G when you learned the piano? All Cars Eat Gas.)
5. Repeat it out loud, several times.
6. Review in your mind what you need. (Before leaving school at the end of the day, stand at your locker and review what books to take home.)
7. Visualize.

HANDOUT 6: SO YOU ARE GOING TO HAVE A TEST

What do I DO?

1. Keep up with your classwork. Don't get behind.
2. Start reviewing the first day after the test is announced.
3. Ask questions of the teacher about the test. What kind of test? What material will it cover? How long will it be?
4. Try to outguess the teacher. Make a practice test for yourself. Can you answer all of the questions?
5. Practice writing any possible essay questions.

The Moment arrives...

1. Ask questions concerning the directions on the test. Highlight the directions if you may write on the test.
2. Read the entire test before beginning. Circle important words.
3. Use your time carefully. Don't get stuck on a ten-point question and fail to complete a fifty-point one!
4. On multiple-choice items, narrow down your choices. If guessing is not penalized, why not risk it?
5. Use all of the time permitted. If someone rushes through early, he/she probably will not make a good grade.
6. Carefully check over your answers.
7. Imagine the teacher returning your paper with a good grade on it.

HANDOUT 7: GETTING ORGANIZED

The primary tool for you at school is a three-ring notebook, at least two- to three-inches wide. The following materials would be in the notebook--in this order. On the front cover, a clip; then in front of the notebook, a zipper bag or pocket and a label sheet containing your name, address, and phone number. Then a calendar, dividers, and an assignment sheet for each subject. At the back, a holding pocket and blank paper.

View yourself as a wheel, with your notebook being the hub. The notebook must be taken home everyday without exception.

These supplies would be in each part of the notebook. As papers are completed, whether at home or at school, they should be put under the clip. NEVER FOLD WORK OR LEAVE ASSIGNMENTS IN BOOKS. In the zipper bag, keep all the small supplies students may need. These items include pencils, clips, erasers, pens, "School Tools," a small dictionary, etc. The labeling sheet, which is next, will show your class schedule, with room numbers. Name, address, phone numbers are also to be included. As you use this system, the notebook becomes indispensable. The calendar, which will be written upon daily, is next and should be one which will fit neatly into the notebook.

Dividers are to be arranged according to your daily schedule. The number of dividers depends on the individual teacher. The section at the back of the notebook for blank paper should have whatever kinds of paper teachers may require--graph paper, typing paper, etc.

The pocket at the back of the notebook is to hold papers returned by the teachers. You are to put only papers, nothing else, in the folder. All classtime should be spent listening to the teacher, practicing work, and writing assignments for the next day. An assignment sheet for each subject is found after the dividers. This will provide a diary of each class and can be used for review at test times.

If teachers require folders and/or spirals, color-code them. Also, try to use the notebook and leave the nice, clean folders in the locker until the teacher asks for folders to be turned in. Color-code the backs of books in order to keep books and folders together.

How the System Works

You should study in the same place and at the same time everyday. The following routine works best. First, file into the appropriate dividers any work returned to you during the day. Then, update your calendar to reflect any long-term assignments given during that day in school. This should also include family and social events. Go through the notebook in order or reverse order. Five minutes of review per class is sufficient if no homework has been assigned. When homework has been completed, put that under the clip at the front of the notebook. Then, when the teacher asks for it, the material is quickly found, and time which should be spent listening is not lost.

BENEFITS OF OFFICE EDUCATION

DEVELOPMENT OF USEFUL ACADEMIC AND VOCATIONAL SKILLS ARE HELPFUL WHEN:

(1) TAKING ADVANCED COURSES

(2) SEEKING EMPLOYMENT

(3) MAINTAINING EMPLOYMENT

DEVELOPMENT OF SOCIAL AND LEADERSHIP SKILLS THROUGH PARTICIPATION IN:

BUSINESS PROFESSIONALS OF AMERICA

- ATTEND YOUTH CONFERENCES
- ENTER COMPETITIVE EVENTS
- RUN FOR AN OFFICE
- PARTICIPATE IN LOCAL CHAPTER ACTIVITIES

LEARNING THROUGH

BUSINESS OFFICE CLERICAL/SERVICES

KEYBOARDING

COMPUTERS

FILING

MANUAL

ELECTRONIC

COMMUNICATIONS

TELEPHONE

WRITTEN COMMUNICATION

LANGUAGE ARTS

TRADITIONAL AND E-MAIL

OFFICE MACHINES

ELECTRONIC CALCULATOR

COPIERS

LAYOUT AND DESIGN

FLUID AND STENCIL DUPLICATING

OFFSET PRESS

DESKTOP PUBLISHING

SOCIAL IMPLICATIONS

IMPORTANT DATES FOR BUSINESS PROFESSIONALS OF AMERICA

1963	Vocational Education Act is passed recognizing need for student organizations.
1966	Office Education Clubs of America is formed with three states as members, Kansas, Iowa, and Wisconsin.
1971	An Alumni Division is formed.
1971	The national office is established in Columbus, Ohio.
1973	An Executive Director is employed.
1976	Vocational Office Careers Clubs of Texas is formed.
1983	National Headquarters building in Columbus, Ohio, is purchased.
1988	The name is changed to Business Professionals of America.
1988	TEXAS has the first associate division to join Business Professionals of America.

HOW TO DO BETTER ON TESTS

KEEP UP WITH YOUR CLASSWORK

START REVIEWING RIGHT AWAY

ASK QUESTIONS

READ/UNDERSTAND DIRECTIONS

CIRCLE IMPORTANT WORDS

CROSS OUT WRONG ONES

NARROW YOUR ANSWERS

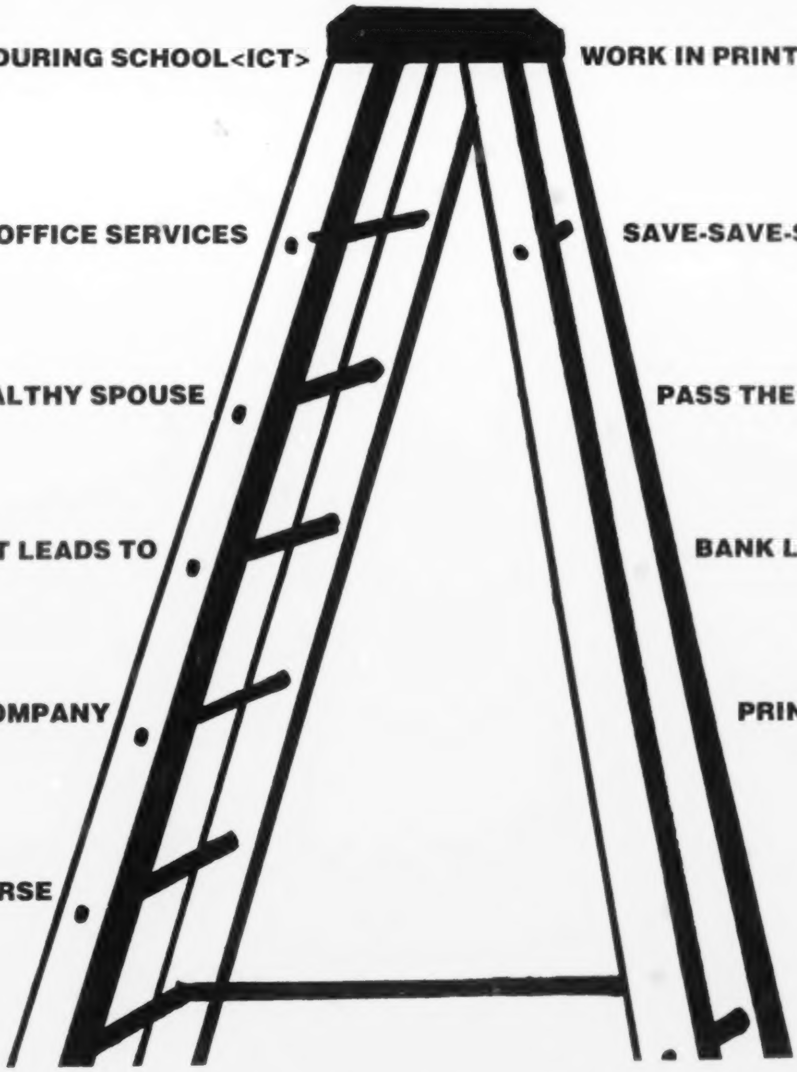
DON'T GET STUCK!

IF NECESSARY, GUESS!

THINK BEFORE YOU WRITE!

TM-5

SUCCESS



WORK DURING SCHOOL<ICT> **WORK IN PRINT SHOP**

BUSINESS OFFICE SERVICES **SAVE-SAVE-SAVE**

MARRY A WEALTHY SPOUSE **PASS THE YEAR**

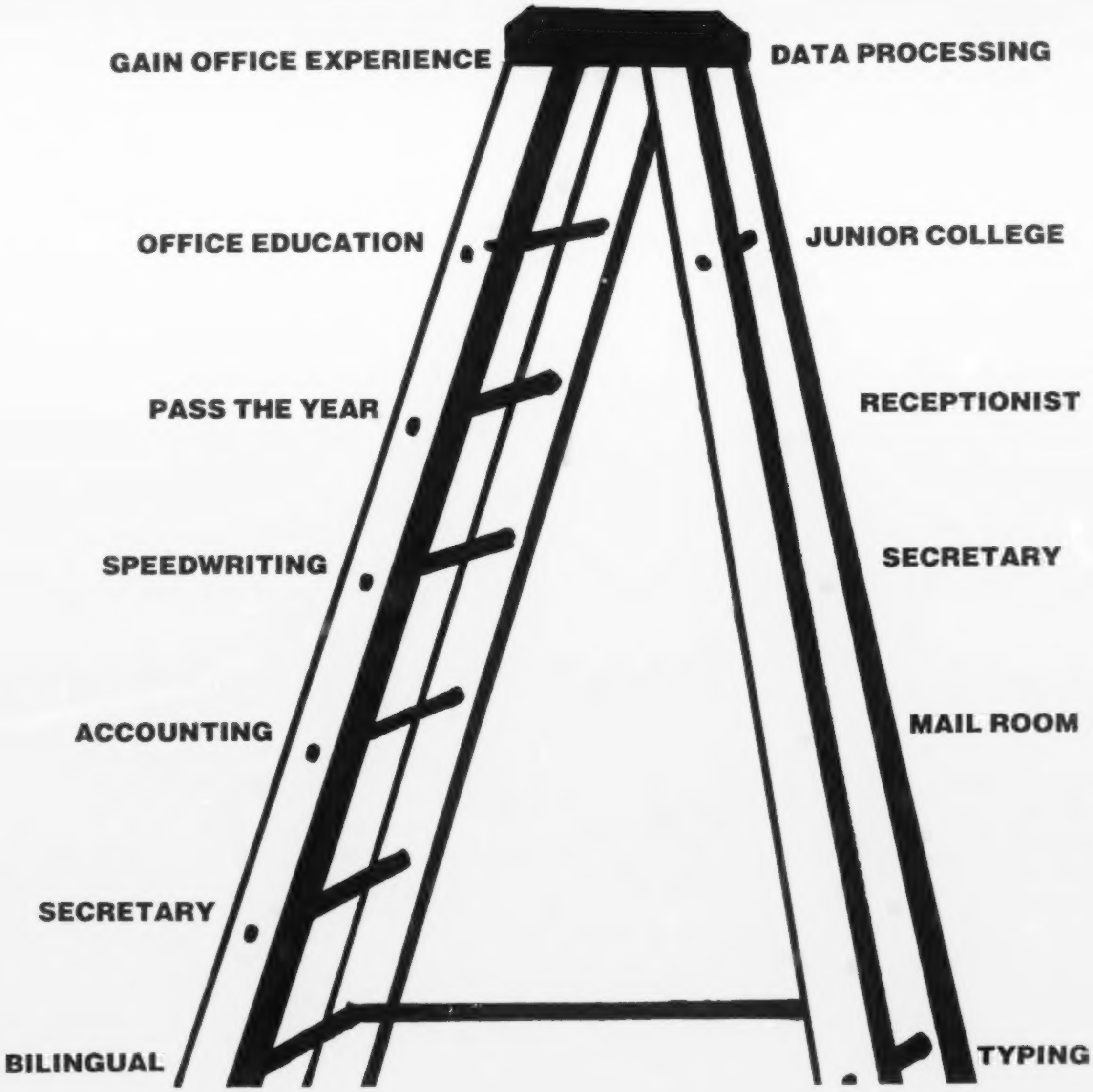
GOOD CREDIT LEADS TO **BANK LOAN**

OWN MY OWN COMPANY **PRINTER**

PRINTING COURSE

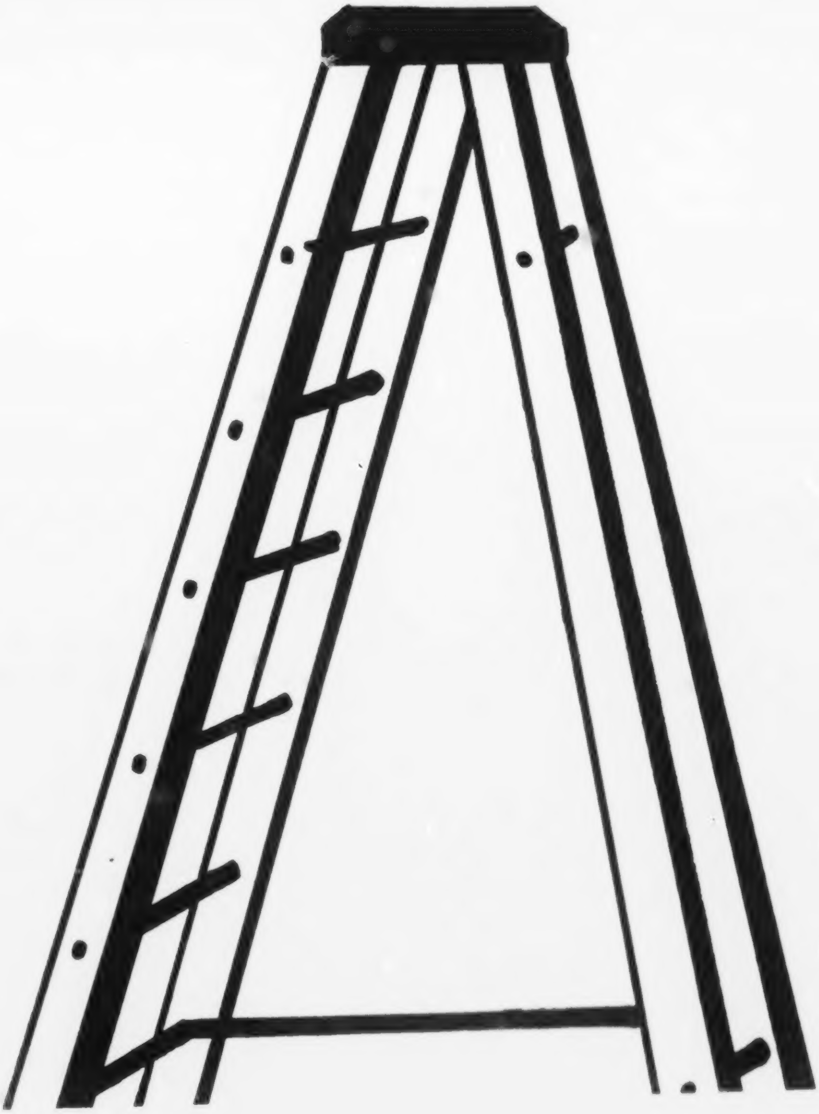
TM-6

SUCCESS


GAIN OFFICE EXPERIENCE
DATA PROCESSING
OFFICE EDUCATION
JUNIOR COLLEGE
PASS THE YEAR
RECEPTIONIST
SPEEDWRITING
SECRETARY
ACCOUNTING
MAIL ROOM
SECRETARY
BILINGUAL
TYPING

TM-7

SUCCESS



TM-8

COMPETENCY TEST

PART I: BUSINESS PROFESSIONALS OF AMERICA

Project 1

INSTRUCTIONS: Fill in the blanks with the appropriate word or words.

1. The colors of our organization are _________, _________, and _________.
2. The need for student organizations was recognized by Congress in _________.
3. We are met in a spirit of _________ and _________ as we prepare for productive lives in _________ and _________ careers.
4. Our original club, VOCCT was formed in _________.
5. The tagline which accompanies our organization's name is _ ___________ _____________ _____________ _____________ _____________. What does this mean?

6. Your chapter can have ___________ machine entries entered into competition.
7. Your chapter can have ___________ general competitive events entries.

Project 2

INSTRUCTIONS: Using complete sentences and good English grammar, discuss the following question.

From the goals of Business Professionals of America, which is most important to you and why?

PART II: STUDY SKILLS TEST

Project 1

INSTRUCTIONS: **In the correct order, list the items to be included in your school notebook.**

Project 2

INSTRUCTIONS: **List five of the seven ways to remember something.**

1.

2.

3.

4.

5.

PART II (Continued)

Project 3

INSTRUCTIONS: **What are four suggestions you might give to a friend who is about to take a test?**

1.

2.

3.

4.

Project 4

INSTRUCTIONS: **Write a T for true or F false in the space provided.**

_____ 1. Students should take their notebook home everyday.

_____ 2. The best place for homework is to fold papers inside your textbooks.

_____ 3. The best way to prepare for a test is to cram the night before.

_____ 4. Highlighting the directions and important words on a test is helpful.

_____ 5. Following directions is not really important.

_____ 6. The formula SQ3R stands for Survey, Questions, Run, Recite, and Review.

_____ 7. A good way to prepare for a test would be to make a sample test yourself.

_____ 8. One way to remember something is to visualize.

_____ 9. Test taking is easier when you finish as quickly as possible.

_____10. Assignment sheets for each course are an important part of the notebook system.

PART II (Continued)

Project 5

INSTRUCTIONS: Discuss one of the following topics:

The SQ3R method

The notebook system

The importance of setting goals

ANSWERS TO ACTIVITIES

Activity

Project 1

1. D
2. A
3. B
4. C
5. G
6. F
7. E

Project 2

Met, spirit, friendship, goodwill, prepare, productive, lives, business, office, careers.

Work, professionalism, leadership, Business, Professionals, America, pledge loyalty, Nation.

Project 3 Evaluated to the satisfaction of the instructor.

Project 4 Evaluated to the satisfaction of the instructor.

Activity 2

Projects 1-6 Evaluated to the satisfaction of the instructor.

COMPETENCY TEST ANSWERS

Part I

Project 1

1. Red, tan, navy blue
2. 1963
3. Friendship, goodwill, business, office
4. 1976

5. The tagline is: Today's students, tomorrow's business professionals
Evaluated to the satisfaction of the instructor.

6. Five (one spirit duplicator, two offsets, two stencils)

7. Unlimited

Project 2 Evaluated to the satisfaction of the instructor.

Part II

Project 1 Notebook system--notebook cover, clip, zipper pocket, labeling sheet, calendar, dividers, assignment sheets, holding pocket.

Project 2 Any five of the following list of ways to remember:

1. Visualize.
2. Make up a formula or sentence.
3. Write it down.
4. Ask a friend to remind you.
5. Repeat it out loud.
6. Wear your watch or rings in a different way.
7. Review in your mind.

Project 3 Evaluated to the satisfaction of the instructor.

Project 4 True/False.

1. T
2. F
3. F
4. T
5. F
6. F
7. T
8. T
9. F
10. T

Project 5 Evaluated to the satisfaction of the instructor.

INTRODUCTION TO BUSINESS OFFICE CLERICAL/SERVICES

INTRODUCTION TO THE COURSE

UNIT OBJECTIVE: Students will develop an understanding of the purpose, contents, and organization of the course business office clerical/services.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Relate the purpose of business office clerical/services to office education, business, and industry.
2. Recognize the role of the youth organization relative to business office clerical/services.
3. Discuss course objectives, equipment, units, competencies, and evaluation measures.
4. Explain classroom organization, management, and safety.
5. Update study skills needed to reach realistic long- and short-range goals.

FOCUS: Students will be provided the opportunity to develop and use both academic and vocational skills that will be useful whether they are taking advanced courses or making the transition from high school to the world of work.

TERMINOLOGY

Business Professionals of America	A youth organization designed to provide opportunities for growth and development of business, office, and leadership skills.
Business office clerical	A course under the umbrella of Coordinated Vocational Academic Education for students to learn basic office skills.
Business office services	A course under the umbrella of Vocational Education of the Handicapped for students to learn basic office and duplicating skills.
Classroom management	Policies and procedures for general classroom operations which enhance the learning environment.
Classroom organization	Arrangement of classroom machines, equipment, furniture, or seating which provides for optimum instruction.
Cluster course	A foundation course which includes concepts and skills that are needed in office occupations.
Competency	The ability to do something.
Competency checklist	A listing of competencies indicating mastery or nonmastery of each.
Evaluation measures	Methods for evaluating student performance.
Occupational specific course	A course which develops skills needed perform a specific occupation.
Office education	One of the program areas which provides for vocational education in office-related occupations.
Safety precautions	Following and applying safety awareness in an office environment.
Units of instruction	Identification of specific topics to be taught during a course.

UNIT OVERVIEW

I. Purpose of course

A. Business Office Clerical/Services is one of the courses coming under the umbrella of office education. Office education is one of several vocational-technical program areas which combines education and job training.

1. The main goal of the office education courses is to deliver instruction that will provide the student with:

   a. Marketable skills.

   b. Knowledge.

   c. Attitudes that will be useful upon graduation.

2. In addition to this primary goal, office education benefits students in other ways by:

   a. Assisting in making the transition from high school to the world of work.

   b. Providing experiences for developing leadership skills.

   c. Assisting with making career choices.

   d. Developing skills, knowledge, and attitudes needed in assuming adult responsibilities.

3. Students enrolled in Business Office Clerical/Services have an opportunity to participate in youth organization activities at the local, state, and national levels through Business Professionals of America. Business Professionals of America encourages students to participate in state and national conferences organized to enhance leadership skills.

   a. History of Business Professionals of America.

   b. Competitive events.

      (1) Events consist of various contests which provide opportunities for competition with students from other schools.

      (2) Students learn sportsmanships by:

         (a) Being a gracious winner.

         (b) Being a gracious loser.

c. Leadership opportunities

(1) Opportunities are available to run for state or national office.

(2) To be elected as an office by one's peers is an honor.

(3) With honor comes responsibility, this means:

(a) Putting the organization first.

(b) Speaking in front of groups.

(c) Planning conferences.

B. Objectives of business office clerical/services

1. The content of this course has been developed from the essential elements required by the State Board of Education.

2. The objectives of these essential elements are to provide learning experiences that will enable students to acquire competency in performing basic tasks relative to office occupations.

C. **Relationship of business office clerical/services to business**--This course has been developed to provide fundamental concepts and skills needed by general office workers.

1. This course is considered a foundation course; that is, the content would be useful in any office position. It is composed of instructional activities that will be helpful in getting an office job or in providing the foundation needed before taking more advanced office-related courses.

2. Job market projections indicate that office workers will continue to be in demand.

a. Regardless of the type of business, people will be needed to handle the clerical operations of the company.

b. Chances for advancement are good for the office worker.

c. Some companies offer incentives such as paying part or all of tuition, fees, and books for employees who further their education. Business Computer Programming I courses are considered a steppingstone into the business and office world.

II. Course overview

A. **Classroom equipment**--the office equipment needed for business office clerical/services has been determined by the essential elements and by the course competencies. The equipment reflects the current skills needed by the beginning office worker. It is important to:

1. Learn and use the proper name of each office machine.

2. Learn the purpose and function of each office machine.

B. **Units of instruction**--business office clerical/services includes 20 units falling under the following section categories:

1. **Introduction to the course**--review of purposes, information and activities, classroom organization, evaluation techniques, opportunities for leadership, and study skills.

2. **Keyboarding**--keyboarding, proofreading, and word processing skills.

3. **Filing**--focuses on alphabetic and numerical filing methods and electronic filing.

4. **Office machines**--reprographics: layout and design, copy operations, supplementary machines, fluid duplicating, stencil duplication, offset procedures, desktop publishing, electronic calculator applications, and microcomputer operations.

5. **Communications**--telephone techniques, traditional and electronic mail handling procedures, written communication, and language arts skills.

6. **Social Implications**--using computers in a responsible manner, social ramifications of computer crimes, viruses, and new technological developments.

7. **Closure of course**--review of course, with emphasis on competencies gained from the course.

C. **Competencies**--a *competency* means the ability to do something. The ability to do something includes attitudes, values, skills, and/or knowledge. Most of the competencies included in this course are job-related. This means that these competencies are needed to perform an office job.

1. A competency checklist is included at the end of each unit.

2. All competencies need to be reviewed before beginning unit lessons.

D. **Evaluation**--a variety of methods are used to evaluate performance and knowledge. Some of the methods might include:

   1. In-class activities.
   2. Outside assignments.
   3. Skill production.
   4. Tests.

E. **Classroom organization and management**

   1. The organization of the classroom has been established to provide optimum experiences for learning. Class size and number of machines are determining factors in classroom organization.
   2. For management purposes, it is necessary to establish policies and/or procedures to ensure quality of performance. For example:
      a. Care of equipment
      b. Use of supplies

F. **Safety**

   1. Office workers often feel secure when it comes to safety. However, the office worker should take responsibility for learning more about the office setting and the office job itself. The beginning worker does not yet have the experiences to realize any potential danger involved.
   2. Companies give much thought and planning to developing a safe, secure environment for their employees. Many elements are taken into consideration to provide facilities and programs that will contribute to the well-being of the people who work in offices.
   3. One of the areas of concentration is office design. Companies plan for:
      a. Attractive and efficient surroundings.
      b. Good lighting for sufficient illumination for the work area.
      c. Special materials on floors and walls to absorb loud or irritating noises caused by office equipment.
   4. Ninety percent of office accidents result from unsafe actions or conditions:
      a. Slipping, tripping, or falling

b. Improper use of equipment

c. Obstructions

d. Fire

e. Electricity

5. The federal government has developed special guidelines to provide for safe and healthful work environments. However, employees must do their part. Some of the things employees can do to contribute to office safety are as follows:

a. Use good judgment.

b. Observe and follow safety procedures.

c. Use safety precautions.

d. Avoid horseplay while on the job.

e. Avoid becoming too emotional, which can lead to loss of control.

f. Use no alcoholic beverages nor drugs.

g. Avoid overloading electrical circuits.

h. Keep walkways clear.

i. Report frayed or damaged electrical cords.

j. Close desk, file, or other drawers before leaving the work area.

k. Immediately unplug any machine or electrical appliance which smells like smoke.

l. Be careful when sitting in rolling chairs or one that leans back too far.

m. Avoid unsafe dress and grooming practices.

n. Have proper ventilation.

o. Be aware that sharp-pointed objects are hazardous.

6. **In case of an accident**--the office worker should know the company policies regarding injuries or accidents. The following steps are usually part of the procedures to follow:

a. Turn off power.

b. Administer first aid.

c. Report all accidents and injuries.

d. Take injured person to hospital emergency room.

7. **Fire safety**--some general procedures should be followed relative to fire prevention:

a. Report a fire quickly.

b. Know the types of extinguishers.

c. Know location of fire extinguishers and how to use them.

(**WARNING: DO NOT** play with firefighting equipment, because it may not work when you need it.)

d. Know the location of the fire alarm, or notify the office.

e. Keep a clean work area with flammable items stored properly.

f. Know the correct way to leave a building in case of a fire.

8. Safety at work

III. Study skills

A. Set long- and short-range goals for the future.

B. Set priorities.

C. Use the SQ3R system.

D. Follow directions.

E. Improve your memory.

F. Use specific test-taking techniques.

G. Get organized.

ACTIVITY 1: BUSINESS PROFESSIONALS OF AMERICA

Project 1

INSTRUCTIONS: Match the dates listed in Column I to the events in Column II.

COLUMN I

A. 1964
B. 1966
C. 1971
D. 1973
E. 1976
F. 1983
G. 1988

COLUMN II

_____ 1. An executive director is employed.
_____ 2. Vocational Education Act is passed.
_____ 3. Kansas, Iowa, and Wisconsin form the Vocational Office Education Clubs.
_____ 4. A national office is established in Columbus, Ohio.
_____ 5. Texas becomes the first associate division.
_____ 6. The national center moves to the building at 5454 Cleveland Ave., Columbus, Ohio.
_____ 7. Vocational Office Careers Clubs of Texas is formed.

ACTIVITY 1 (Continued)

Project 2

INSTRUCTIONS: Fill in the missing words of the pledge.

We are _________ in a _________ of _________ and _________ as we _________ for _________ _________ in _________ and _________ _________.

We _________ together to develop _________ and _________ through _________ _________ of _________ and _________ our _________ to our _________.

ACTIVITY 1 (Continued)

Project 3

INSTRUCTIONS: **From the purposes listed in Handout 3, write down the three purposes which are most important to you. Tell why you feel they are most important. Use complete sentences.**

1.

2.

3.

Project 4

INSTRUCTIONS: **After careful study of Handout 4, as well as the competitive event guidelines, make plans to enter at least one area of competition. List the event and the steps, in order, you plan to take to accomplish that goal.**

ACTIVITY 2: STUDY SKILLS PROJECTS

Project 1

INSTRUCTIONS: Follow the instructions below.

EMERGENCY CHECK LIST

You are on board a 747 that has crash-landed in the middle of the Sahara Desert. You have five minutes to gather possessions with you that must last until you are rescued. What should you take?

Hair dryer
Food
First-aid kit
Radio
Magazines
Gun
Fire extinguisher
Raincoat
Tape recorder
Clothing
Fishing supplies
Ammunition
Matches
Blankets
TV
School books
Water
Flares

List the items in order of importance to your survival in the desert. The most important item would be first on your list, etc.

ACTIVITY 2 (Continued)

Project 2

FOLLOWING DIRECTIONS

INSTRUCTIONS: **The following is a psychological test concerning your ability to follow directions. Do not hesitate to do whatever the questions ask of you. This is a timed exercise, so good luck! Below are several questions. Read all of the questions before doing anything.**

1. Say aloud the names of two states where you would like to live.
2. Who is your favorite movie star? Yell the name!
3. List the names of all your uncles and aunts.
4. What is your favorite color?
5. What do you plan to do after high school?
6. Run around the room!
7. How many spokes does a bicycle wheel have?
8. Draw a circle around question number 15.
9. Clear off your desk.
10. Have you ever visited Europe? Yell your answer!
11. Name three movies you have seen in the last year.
12. Call out the name of the President of the United States.
13. Put all of your belongings on the top of your desk.
14. What is the date of Christmas? Yell it aloud!
15. New York City is on which coast of the United States.
16. Los Angeles is on which coast of the United States?
17. Do you like to travel?
18. List three countries you would like to visit.
19. Who is Ronald Reagan?
20. Write your name on your paper, sit quietly, and watch the fun. Do not answer any of the questions.

ACTIVITY 2 (Continued)

Project 3

INSTRUCTIONS: List ten things you would like to do or have later in life.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

What do you need to do in order to have those "things"?

ACTIVITY 2 (Continued)

Project 4

INSTRUCTIONS: Unless you are independently wealthy, you must work for these "things." Discuss what kind of work you will do. How much schooling will you need?

Project 5

INSTRUCTIONS: Plan your high school courses until graduation. How do these courses fit in with what you want to do? Do you need to go to college or a trade school? Add those courses you would take to your list.

For example, if you want to become a bilingual secretary, what courses should you take in high school? Keyboarding? Information Processing? Accounting? To gain experience in a real office, you would also want to take all of the office education courses you could, especially co-op. If you wanted to be the best bilingual secretary, you would also consider further education after high school. What about junior college?

ACTIVITY 2 (Continued)

Project 6

INSTRUCTIONS: List the ways memory techniques can be used at home or at school.

SECTION I

KEYBOARDING

ESSENTIAL ELEMENTS

75.87(d)/(m)(1)(A)(B)(C)

1. Concepts and skills involved in keyboarding. The student shall be provided opportunitities to:

   (A) Demonstrate the skills involved in keyboarding;

   (B) Apply appropriate procedures for proofreading and correcting errors; and

   (C) Demonstrate and identify information processing concepts in keyboarding.

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SUGGESTED UNIT LESSON PLAN

SECTION I: KEYBOARDING

UNIT I: KEYBOARDING SKILLS

ESSENTIAL ELEMENT: 75.87 (d)/(m)(1)(A)(C)

ALLOCATED TIME: 15-30 Hours

UNIT OBJECTIVE: The student will be able to develop concepts and build skills needed to process information accurately and quickly using the keyboard.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Identify terminology related to basic keyboarding.
2. Recognize and demonstrate proper keyboarding techniques.
3. Demonstrate keyboarding improvement in both speed and accuracy.
4. Demonstrate the knowledge and ability to perform basic keyboarding and formatting procedures.
5. Identify components and special keys on the microcomputer keyboard.

FOCUS: Keyboarding still remains the principal method for original data entry. Computer keyboarding continues to gain momentum. Some forecasters are predicting that by the twenty-first century, the computer will be used in 80 percent of the jobs. Attaining keyboarding skills should be considered as a priority for persons entering the work force or pursuing additional education.

DOMAINS: Activities and competency tests have been designed to provide learning experiences utilizing the cognitive, psychomotor, or affective domains. Activities and competency tests are coded on the Activity and Competency Test Matrices.

BASIC SKILLS: Activities and competency tests have been designed to reinforce the basic skills of reading, writing, and/or mathematics. Activities and competency tests are coded on the Activity and Competency Test Matrices.

CONTENT OUTLINE

I. Keyboarding techniques
   A. Preparing to type
   B. Finger position
   C. Keystroking
   D. Removing the paper
II. Basic typing facts
   A. Type sizes
   B. Setting margins
   C. Clearing and setting tabs
   D. Horizontal centering
   E. Vertical centering
III. Computer keyboarding concepts
   A. Computer system
   B. Disk handling techniques

SUGGESTED TEACHER ACTIVITIES

General Teacher Preparation

1. Preview unit.
2. Review unit objectives.
3. Make instructional analysis.
4. Assess student learning needs.
5. Decide on lesson domain: cognitive, psychomotor, or affective domain.
6. Select instructional materials based on instructional analysis and student learning needs.
7. Select instructional strategies based on lesson content and student learning needs.
8. Prepare lesson plans from the unit lesson.
9. Prepare additional instructional material.
10. Reserve necessary media and equipment.

Teacher Presentation

1. Present student objectives.
2. Establish rapport with students.
3. Review lesson objectives with students.
4. Relate lesson to prior or future learning.
5. When appropriate, encourage student interaction through questioning, discussions, or some other strategy.
6. Emphasize the value/importance of the unit or activity.
7. Allow time for closure of a lesson.

Reteach Activities

1. Identify area(s) of weakness from results of evaluation.
2. Select unit activities not previously used.
3. Use additional resources and/or create materials based on student learning needs.
4. Use a different teaching strategy in reteaching.
5. Retest.

Specific Teaching Suggestions

1. Most teachers will be faced with a mix of students, those who know keyboarding and others who do not. It is advantageous for students to learn keyboarding by touch; however, you should not spend too much time helping students who missed keyboarding classes to progress to the skill level of the experienced students.

2. The curriculum takes into consideration the diversity of keyboarding equipment. It is suggested that you review the Unit Contents Outline and the Unit Overview to identify necessary changes based on the type of keyboarding equipment you have in your classroom.

3. Many very good software programs that teach keyboarding are available for a nominal cost if you have microcomputers in the classroom. Because of the time allotted for this unit, modification of keyboarding instructional materials may be necessary. Refer to the resource section for a listing of keyboarding materials.

4. Be prepared to modify instruction for advanced students. A few suggestions are:

    a. Consider peer instruction as a teaching strategy, teaming the experienced with the inexperienced student.

    b. The experienced students may be assigned more advanced activities or programs. For example, assign a mouse if one is available.

    c. Develop advanced keyboarding activities for the experienced students to perform.

    d. Try to make keyboarding assignments without referring to the difficulty of the project. Sometimes the more advanced students react negatively if they believe their assignments are "harder." Some of the inexperienced may feel intimidated.

5. Prepare handout information on the special features of the electric typewriter, electronic typewriter, and the microcomputer.

6. Prepare a transparency on the special features of one or all of the keyboarding equipment.

7. Using the group presentation as a teaching strategy, divide the class into three groups:

    a. Assign group one the electric typewriter.

    b. Assign group two the electronic typewriter.

    c. Assign group three the microcomputer.

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d. Working in groups, the students are able to prepare properly formatted reports, which will later be presented orally to the class. Help groups get started, with the reports by suggesting resources, outlining techniques, and oral presentations. You may want to develop a format for students to follow in preparing their reports.

e. Ask class members to take notes and/or write down questions or interesting comments to be discussed at the end of each report.

f. Be sure to follow through at the conclusion of the reports. Some suggestions are:

   (1) Discussion of main ideas.

   (2) Comparison and contrast of machines.

   (3) Advantages and disadvantages of each machine.

   (4) Discussion of what kinds of businesses would be more likely to use a particular type of keyboarding equipment.

8. Show a film in which manual typewriters are used in the office. Let students identify changes that have been made in modern offices. Futuristic films may also be used.

9. Compile a classroom library on keyboarding. Get students involved. Some companies may give you old editions; mix with recent editions.

10. Prepare a bulletin board showing copy of data from:

   a. Manual typewriter.

   b. Electric typewriter.

   c. Electronic typewriter.

   d. Microcomputer.

11. Invite a keyboarding specialist to speak to the class. Suggested topics are:

   a. Speed (you may want a demonstration).

   b. Applications (you may want a demonstration).

   c. Opportunities with different companies (examples: banking, insurance, airlines).

   d. Keyboarding equipment.

12. Invite an office education cooperative student whose current training includes keyboarding to speak to the class. Be sure the speaker enjoys keyboarding and has a positive outlook on the cooperative program.

13. Take the class on a tour of your school office. Steps for planning are:

    a. Secure permission from proper administrator. Be prepared to justify the tour as a valid learning experience.

    b. Prepare the students before taking the tour:

        (1) Purpose

        (2) What to look for

        (3) What you expect them to know or to do upon return to class

    c. Closure (summation or reinforcement of tour)

14. Demonstrate proper keyboarding techniques to the class.

15. If equipment is available, videotape the class as they practice keyboarding and/or typewriting. Try to show each student individually. Review the video with the class. One suggestion is to videotape periodically during skill building exercises. Ask those students who are having problems to review the video independently and analyze their keyboarding skills. Lead them to see the problem areas, if any.

16. Collect materials to be keyed in that are relevant to the students. This is more motivating.

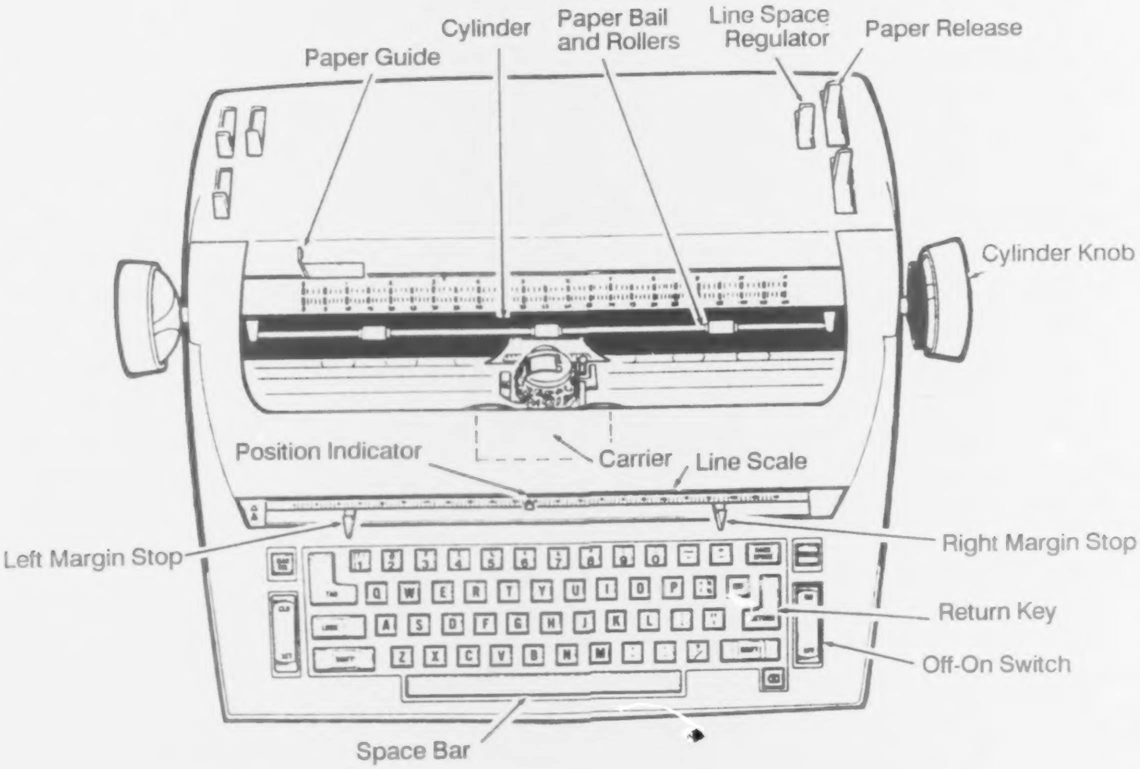
ACTIVITY MATRIX

Activities	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
1 Project 1	X				X	
Project 2	X				X	
2	X	X		X		
3	X	X			X	X
4 Project 1	X	X			X	X
Project 2	X	X			X	X
Project 3	X	X			X	X
5 Project 1	X				X	
Project 2	X				X	
Project 3	X				X	

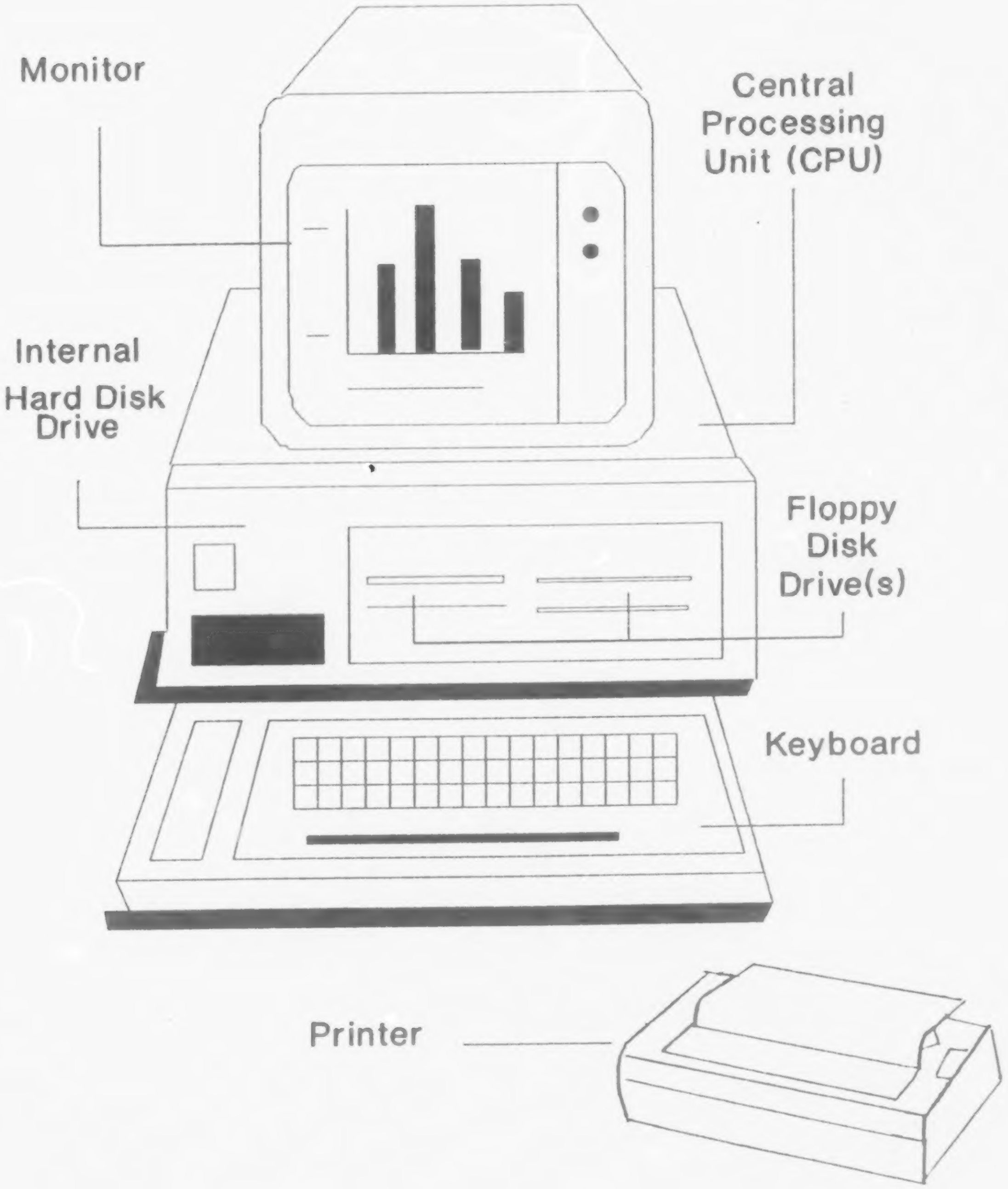
COMPETENCY TEST MATRIX

Parts	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
I	X			X		
II	X			X		
III		X			X	X
IV Project 1	X			X		
Project 2	X	X			X	
Project 3	X	X			X	
Project 4	X	X			X	
V	X			X		

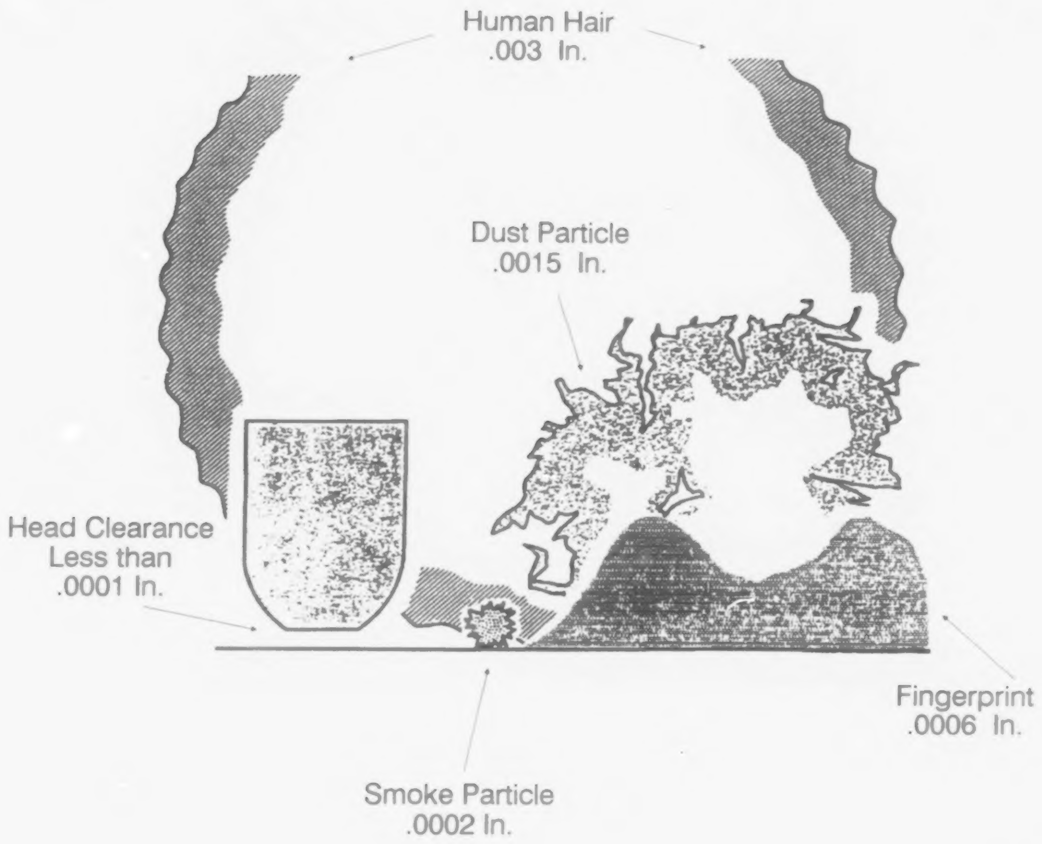
HANDOUT 1: PARTS OF A TYPEWRITER


Paper Guide
Cylinder
Paper Bail and Rollers
Line Space Regulator
Paper Release
Cylinder Knob
Position Indicator
Carrier
Line Scale
Left Margin Stop
Right Margin Stop
Return Key
Off-On Switch
Space Bar

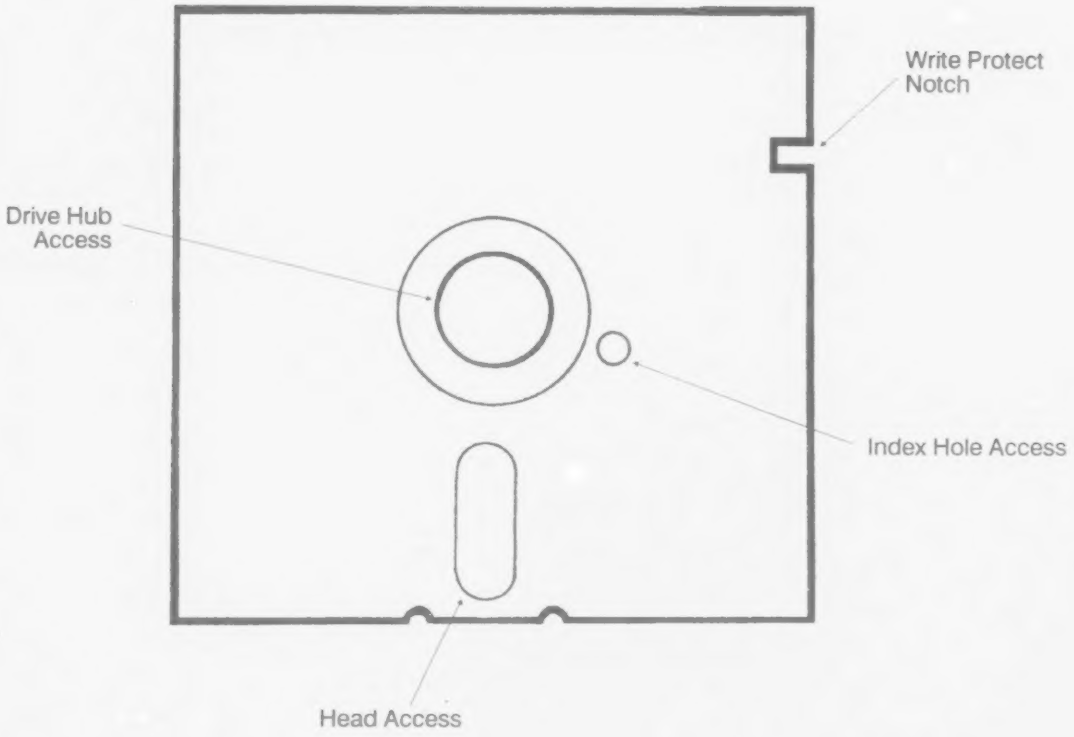
HANDOUT 2: THE COMPUTER SYSTEM


Monitor
Central Processing Unit (CPU)
Internal Hard Disk Drive
Floppy Disk Drive(s)
Keyboard
Printer

HANDOUT 3: RELATIVE SIZES OF DISK-DAMAGING ITEMS


Human Hair
.003 In.
Dust Particle
.0015 In.
Head Clearance
Less than
.0001 In.
Fingerprint
.0006 In.
Smoke Particle
.0002 In.

HANDOUT 4: FLOPPY DISK


Write Protect Notch
Drive Hub Access
Index Hole Access
Head Access

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COMPETENCY TEST

PART I: TERMINOLOGY

INSTRUCTIONS: Match each of the following terms with its definition by the correct letter in the space at the left.

A. Backspace
B. Carrier
C. Correction key
D. Cylinder
E. Cylinder knob
F. Double-space
G. Element
H. Left margin stop
I. Line scale
J. Line-space regulator
K. Off-on switch
L. Paper bail and roller
M. Paper guide
N. Paper release
O. Pitch selector
P. Position indicator
Q. Return key
R. Right margin stop
S. Single space
T. Space bar
U. Shift
V. Shift lock
W. Tab

_____ 1. Used to select pica or elite pitch, depending on the element being used.

_____ 2. Prints the letter or symbol that is touched on the keyboard.

_____ 3. Frees the paper for straightening or removing.

_____ 4. Copy has no blank lines between lines.

_____ 5. Sets spacing as single or double.

_____ 6. Shows the space at which the typewriter is ready to print.

_____ 7. Holds and moves the paper in and out.

_____ 8. Used to erase type from the paper.

_____ 9. Moves the carrier to the left margin and moves the paper up.

_____ 10. Moves the element across the regulator paper.

_____ 11. Used to lock the shift mechanism so that all letters are capitalized.

_____ 12. Stops the carrier at a set right point.

_____ 13. Leaving one blank line between displayed or printed line of copy.

_____ 14. Sets centering point of paper.

_____ 15. Turns the cylinder.

_____ 16. Holds paper against the indicator cylinder.

_____ 17. Used to type capital letters.

_____ 18. Numbers the spaces.

_____ 19. Turns the power on or off.

_____ 20. Used to move carriage to tab stops that have been chosen.

_____ 21. Stops the carrier at a set left point.

_____ 22. Moves the carrier one stroke each time it is touched.

_____ 23. Moves the carrier back one space each time it is touched.

PART II: KEYBOARDING TECHNIQUES

INSTRUCTIONS: **Choose the correct answer for each question and place the letter in the blank at the left.**

_____ 1. When typing the "f", what finger is used?

A. Left little finger
B. Right forefinger
C. Left forefinger
D. Right little finger

_____ 2. When typing the "j", what finger is used?

A. Left second finger
B. Right second finger
C. Left forefinger
D. Right forefinger

_____ 3. When typing the "t", what finger is used?

A. Left forefinger
B. Right forefinger
C. Left second finger
D. Right second finger

_____ 4. When typing the "l", what finger is used?

A. Right third finger
B. Left third finger
C. Right little finger
D. Left little finger

_____ 5. When typing the "a", what finger is used?

A. Left little finger
B. Right little finger
C. Left third finger
D. Right third finger

_____ 6. When typing the "b", what finger is used?

A. Right forefinger
B. Left forefinger
C. Right second finger
D. Left second finger

_____ 7. When typing the "m", what finger is used?

A. Right forefinger
B. Left forefinger
C. Right third finger
D. Left third finger

_____ 8. When typing the "d", what finger is used?

A. Right third finger
B. Left third finger
C. Right second finger
D. Left second finger

_____ 9. When typing the "k", what finger is used?

A. Right second finger
B. Right third finger
C. Left second finger
D. Left third finger

_____ 10. When typing the "u", what finger is used?

A. Right forefinger
B. Left forefinger
C. Right second finger
D. Left second finger

_____ 11. When typing the "y", what finger is used?

A. Right forefinger
B. Left forefinger
C. Right little finger
D. Left little finger

_____ 12. When typing the "p", what finger is used?

A. Right forefinger
B. Left forefinger
C. Right little finger
D. Left little finger

_____ 13. When typing the "z", what finger is used?

A. Right forefinger
B. Left forefinger
C. Right little finger
D. Left little finger

_____ 14. When typing the "e", what finger is used?

A. Right forefinger
B. Left forefinger
C. Right second finger
D. Left second finger

_____ 15. When typing the "i", what finger is used?

A. Right forefinger
B. Left forefinger
C. Right second finger
D. Left second finger

PART III: KEYBOARDING SKILL AND ACCURACY

INSTRUCTIONS: **Take two timings each day for a week. Take the two best that reflect both speed and accuracy improvement. Your teacher will provide you with the timings.**

PART IV: BASIC TYPING FACTS

Project 1

INSTRUCTIONS: **Fill in the blanks with the appropriate word or words.**

________________ 1. In setting margins, how many spaces are allowed for line endings (bell)?

________________ 2. On an elite typewriter, what are the margins for a 60-space line?

________________ 3. What are the margins for a 40-space line (elite)?

________________ 4. What do we use as the center on an elite typewriter?

________________ 5. What do we use as the center on a pica typewriter?

________________ 6. How many lines are available on a full sheet of 8 1/2- x 11-inch paper?

________________ 7. How many lines are available on a half sheet of 8 1/2- x 11-inch paper?

________________ 8. In horizontal centering, you tab to the center and __________ once for every two letters, figures, or spaces.

________________ 9. Elite has __________ spaces to the horizontal inch.

________________ 10. Pica has __________ spaces to the horizontal inch.

________________ 11. To clear a tab, move the element to the far right, hold the tab clear key and strike the __________ key.

________________ 12. To set a tab, move the carrier to where you want a tab and strike the tab __________ key.

________________ 13. The formula for __________ __________ is:

$$\frac{\text{Lines available-lines used}}{2} = \text{top margin}$$

PART IV (Continued)

Project 2

INSTRUCTIONS: Key in the following paragraph first using a 40-space line, then a 50-space line, and finally a 60-space line.

Project 3

INSTRUCTIONS: Set tabs five spaces apart. Double-space the document. Start on line 12 on a half sheet of paper.

Project 4

INSTRUCTIONS: Center the following on a half sheet of paper; double-space.

PART V: COMPUTER KEYBOARDING CONCEPTS

INSTRUCTIONS: **Match each of the following terms with its definition by placing the correct letter in the space at the left.**

A. Input devices
B. Alphabetic keys
C. Number/symbol keys
D. Punctuation keys
E. Arrow keys
F. Home key
G. Page up key
H. Page down key
I. End key

J. Backspace key
K. Tab right/left key
L. Enter/return key
M. Escape key
N. Shift key
O. Caps lock key
P. Insert key
Q. Delete key

R. NUMLOCK key
S. PRINTSCR key
T. Function key
U. Random access
V. Read only memory
W. Floppy disks
X. Hard disk
Y. Output devices

_____ 1. Used to type over existing characters.

_____ 2. Moves the cursor back one space.

_____ 3. Moves the cursor to the end of the line.

_____ 4. Special key, usually program-specified to leave certain programs or menu structures.

_____ 5. Standard typewriter alphabet keys.

_____ 6. Moves the cursor one space in any of the four directions.

_____ 7. Moves the cursor to the upper-left space on the screen.

_____ 8. Used to tell the computer to process whatever instruction was just typed, and it moves the cursor back to the left margin.

_____ 9. Can be depressed with alphabetic keys to make capitals.

_____10. Moves the document up one full screen.

_____11. Keys which are found on the top row of the keyboard.

_____12. Enables the operator to type in all capital letters.

_____13. Used to erase screen.

_____14. Moves the cursor to set tab or default position.

_____15. Computer's temporary memory.

_____16. Works much the same as a floppy disk, except it is made of thin metal and is usually encased in the computer.

_____17. Prints the screen.

_____18. Round thin plastic records that receive and store information for a computer.

_____19. Lets the computer communicate the results of its work.

_____20. Activated by holding down the shift key and the specific character key.

_____21. Part of the computer that memory (RAM) takes in information.

_____22. Varies from computer to computer.

_____23. Enables the number key pad to be used for entering numbers.

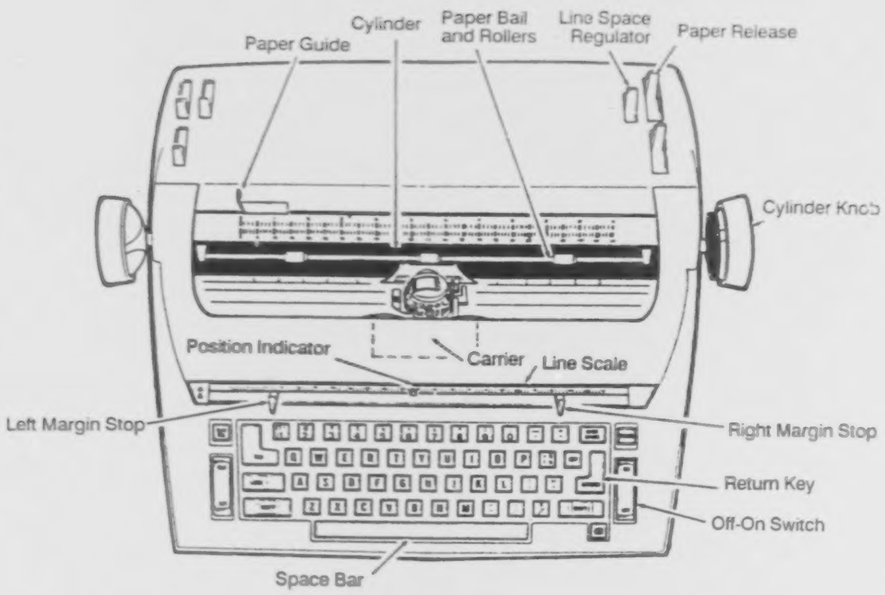
_____24. Moves the document down one full screen.

_____25. Computer's permanent memory.

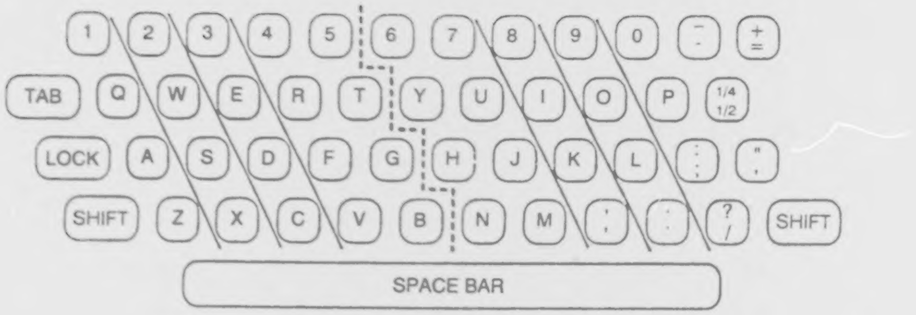
ANSWERS TO ACTIVITIES

Activity 1

Project 1


Paper Guide
Cylinder
Paper Bail and Rollers
Line Space Regulator
Paper Release
Cylinder Knob
Position Indicator
Carrier
Line Scale
Left Margin Stop
Right Margin Stop
Return Key
Off-On Switch
Space Bar

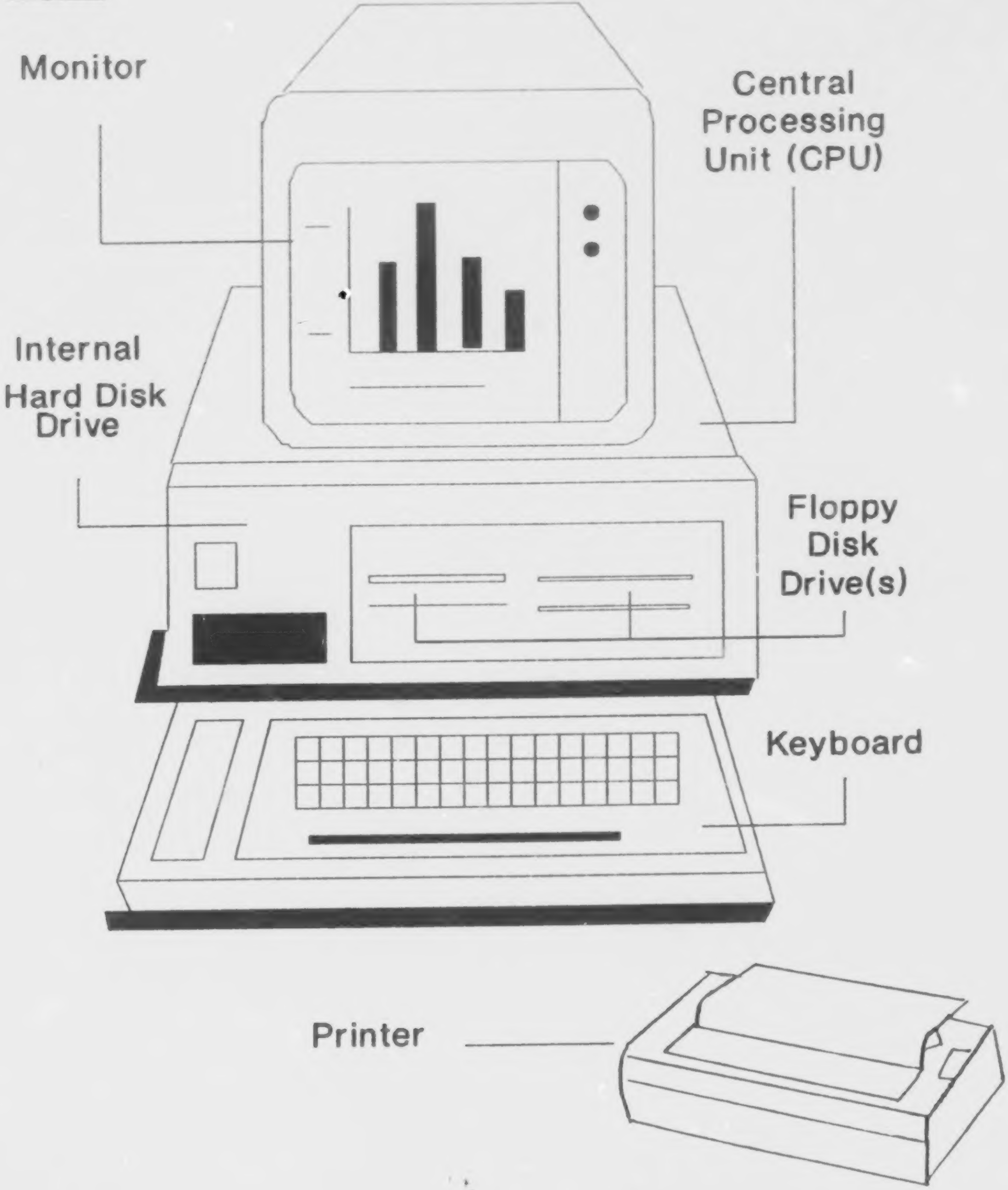
Project 2


1 2 3 4 5 6 7 8 9 0 - +
TAB Q W E R T Y U I O P 1/4 1/2
LOCK A S D F G H J K L ; "
SHIFT Z X C V B N M , . ? SHIFT
SPACE BAR

Activities 2-4 Evaluated to the satisfaction of the instructor.

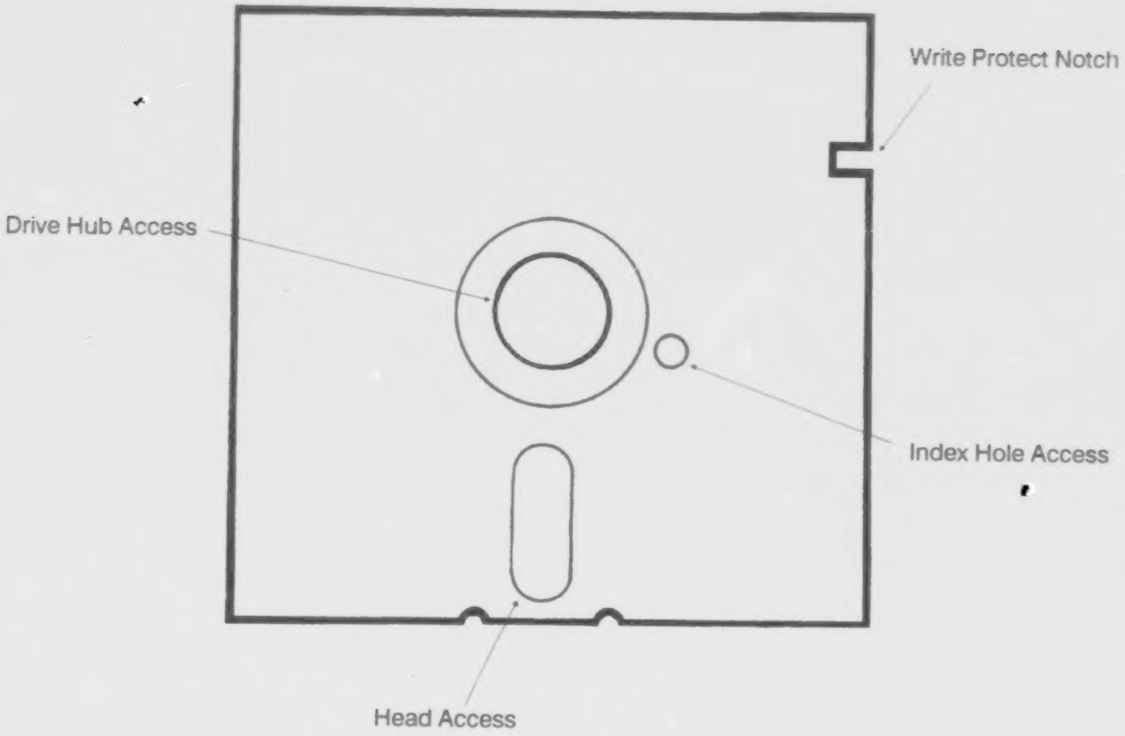
Activity 5

Project 1


Monitor
Central Processing Unit (CPU)
Internal Hard Disk Drive
Floppy Disk Drive(s)
Keyboard
Printer

Project 2 Evaluated to the satisfaction of the instructor.

Project 3


Write Protect Notch
Drive Hub Access
Index Hole Access
Head Access

COMPETENCY TEST ANSWERS

Part I

1. O
2. G
3. N
4. S
5. J
6. P
7. D
8. C
9. Q
10. B
11. V
12. R
13. F
14. M
15. E
16. L
17. U
18. I
19. K
20. W
21. H
22. T
23. A

Part II

1. C
2. D
3. A
4. A
5. A
6. B
7. A
8. D
9. A
10. A
11. A
12. C
13. D
14. D
15. C

Part III Evaluated to the satisfaction of the teacher.

Part IV

Project 1

1. 5
2. 20 and 85
3. 30 and 75
4. 50
5. 42
6. 66
7. 33
8. Backspace
9. 12
10. 10
11. Return
12. Set
13. Vertical centering

Projects 2-4 Evaluated to the satisfaction of the teacher.

Part V

1. P
2. J
3. I
4. M
5. B
6. E
7. F
8. L
9. N
10. G
11. C
12. O
13. Q
14. K
15. U
16. X
17. S
18. W
19. Y
20. D
21. A
22. T
23. R
24. H
25. V

RESOURCES

TEXT/WORKBOOKS

100 MULTI-ETHNIC TIMED WRITINGS: MAKING COURAGE COUNT
Forkner Publishing Co.

101 TYPEWRITING TIMED WRITINGS WITH SELECTED DRILLS
South-Western Publishing Co.

BASIC INFORMATION KEYBOARDING SKILLS
South-Western Publishing Co.

BASIC KEYBOARDING AND TYPEWRITING APPLICATIONS
South-Western Publishing Co.

BASIC TYPEWRITING APPLICATIONS
South-Western Publishing Co.

CREATIVE TIMED WRITERS
Gregg Division/McGraw-Hill, Inc.

GLENCOE KEYBOARDING
Glencoe Publishing Co.

HOUGHTON-MIFFLIN KEYBOARDING AND APPLICATIONS
Houghton-Mifflin Co.

KEYBOARDING FOR EVERYONE
Anaheim Book Co.

KEYBOARDING FOR INFORMATION PROCESSING
Gregg Division/McGraw-Hill, Inc.

KEYBOARDING FOR THE INFORMATION PROCESSOR
Glencoe Publishing Co.

KEYBOARDING SKILLBUILDER
Glencoe Publishing

PROFESSIONAL AND PERSONAL KEYBOARDING AND TYPEWRITING
South-Western Publishing Co.

TRIPLE-CONTROLLED TIMED WRITINGS
South-Western Publishing Co.

TYPE RIGHT!
Glencoe Publishing

TYPEWRITING SPEED/CONTROL BUILDERS
South-Western Publishing Co.

SOFTWARE

ALPHABETIC KEYBOARDING
Apple II, IIe, Franklin, 2 diskettes
IBM PC, XT
South-Western Publishing Co.

BUSINESS QUIZ: TYPING
Apple II, IIe, IIc 32k
Career Aids

EXECUTIVE SPELLER
Apple II, IIe, IIc 48k; IBM PC 64k
Glencoe Publishing

GREGG KEYBOARDING FOR INFORMATION PROCESSING
Apple II, 3 diskettes
Gregg Division/McGraw-Hill and Control Data Corp.

GREGG TYPING, SERIES EIGHT, TIMED WRITINGS
IBM PC, XT
Gregg Division/McGraw-Hill and Control Data Corp.

HOUGHTON-MIFFLIN TYPEWRITING DRILL AND PRACTICE SOFTWARE
Apple IIc, IIe; IBM PC, XT; Tandy 1000
Houghton-Mifflin Co.

HOUGHTON-MIFFLIN TYPEWRITING TIMED WRITING SOFTWARE
Apple IIc, IIe; IBM PC, XT; Tandy 1000
Houghton-Mifflin Co.

HOW FAST CAN YOU TYPE RIGHT?
Barron Enterprises
Learning Services

KEYBOARD MASTER
Apple II, IIe
Encyclopedia Britannica Educational Corp.
Software Center

KEYBOARDING FOR THE INFORMATION PROCESSOR
Apple IIc, IIe, II+; IBM PC
Glencoe Publishing Co.

KEYBOARDING FOR THE PHYSICALLY HANDICAPPED
Apple II+, IIe or IIc; TRS-80 Model III, IV; IBM PC, PC jr.
Gregg Division/McGraw-Hill Book Co.

KEYSTROKES: KEYBOARDING FOR INFORMATION ENTRY
Apple II+, IIe or IIc; TRS-80 Model III or IV; IBM PC
Houghton-Mifflin Co.

KEYWORDS
Apple II, IIe, IIc 48k
Career Aids

LETTERMAN
Apple II, IIe, IIc 48k
Career Aids

MASTER TYPE
Apple, Commodore 64, IBM PC
Scholastic Produced Software & Books

MASTERTYPE
Apple II, IIe, IIc 48k; Macintosh, Macintosh+; IBM PC, XT, AT 128k
Career Aids

MICROCOMPUTER KEYBOARDING
Apple II, IIe, Franklin; IBM PC; 4 diskettes
South-Western Publishing Co.

MICROTYPE I: WORD PROCESSING PICTURE PROJECTS
J. Weston Walch, Publisher

MICROTYPE II: CHALLENGING WORD
J. Weston Walch, Publisher

MICROTYPE TUTOR
J. Weston Walch, Publisher

PACING SOFTWARE FOR PROGRESSIVE TYPEWRITING SPEED PRACTICE
IBM PC, XT
Gregg Division/McGraw-Hill

SMARTTYPE-A KEYBOARDING PROGRAM
Apple; IBM
Gregg Division of McGraw-Hill

SUPERKEY
Apple II, IIe, IIc
Career Aids

TARGET TYPE
Apple II, IIe, IIc 48k
Career Aids

TNT; TYPING FOR NEW TYPISTS
Apple II, IIe, IIc 48k; IBM PC 64k
Glenco Publishing Co.

TYPE!
Apple, IBM
Scholastic Produced Software and Books

TYPE RIGHT
Career Aids

TYPE RIGHT
Career Publishing, Inc.

TYPE RIGHT, Advanced
Career Publishing, Inc.

TYPE RIGHT, Business Version
Career Publishing, Inc.

TYPE-A-THON
Aquarius People Materials, Inc.

TYPERIGHT
Apple II, IIe, IIc 48k; IBM PC, XT, AT 128k
Learning Services

TYPING INSTRUCTOR
IBM PC 64k
Career Aids

TYPING FOR INDIVIDUAL ACHIEVEMENT
Houghton-Mifflin Co.

TYPING STRATEGY
Apple II, IIe, IIc 48k; IBM PC 64k
Career Aids

TYPING TUTOR IV
Apple; Commodore 64; IBM PC, XT, AT
Learning Services

MEDIA

DOS/IBM PC
Video
RMI Media Productions, Inc.

COMPETENCY CHECK LIST

ESSENTIAL ELEMENTS: 75.87 (d)/(m)(1)(A)(C)

Student shall be provided opportunities to demonstrate the skills involved in keyboarding and demonstrate and identify information processing concepts in keyboarding.

Objective: **The student will be able to develop concepts and build skills needed to process information accurately and quickly using the keyboard.**	MASTERY	NON-MASTERY
1. **Identify terminology related to basic keyboarding.**	________	________
2. **Recognize and demonstrate proper keyboarding techniques.**	________	________
3. **Demonstrate keyboarding improvement in both speed and accuracy.**	________	________
4. **Demonstrate the knowledge and ability to preform basic keyboarding and formatting procedures.**	________	________
5. **Identify components and special keys on the microcomputer keyboard.**	________	________
	________	________
	________	________

STUDENT NAME________________________________

SUGGESTED UNIT LESSON PLAN

SECTION I: KEYBOARDING

UNIT II: PROOFREADING AND CORRECTING ERRORS

ESSENTIAL ELEMENTS	75.87 (d)/(m)(1)(B)	**ALLOCATED TIME:**	10-12 Hours

UNIT OBJECTIVE: Students will be able to recognize errors in written documents and will be able to use proofreading marks as a method of identifying or editing the documents.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Use terminology related to proofreading.
2. Identify the characteristics of a good proofreader.
3. Identify common types of errors.
4. Identify steps in proofreading.
5. Recognize and write proofreading/editing marks.
6. Demonstrate the ability to use common proofreading marks correctly.

FOCUS: Good proofreading skills are a high priority in achieving success in a business environment regardless of the position one has. Mistakes are costly. A good proofreader contributes to the productivity of business and thus enhances his/her own personal success.

DOMAINS: Activities and competency tests have been designed to provide learning experiences utilizing the cognitive, psychomotor, or affective domains. Activities and competency tests are coded on the Activity and Competency Test Matrices.

BASIC SKILLS Activities and competency tests have been designed to reinforce the basic skills of reading, writing, and/or mathematics. Activities and competency tests have been coded on the Activity and Competency Test Matrices.

CONTENT OUTLINE

I. Defining proofreading and the characteristics of a good proofreader
    A. Proofreading defined
    B. Characteristics of good proofreaders

II. Types of errors
    A. Keyboarding errors
    B. English errors
    C. Formatting errors
    D. Appearance errors
    E. Author's writing errors
    F. Content errors

III. Steps in proofreading
    A. Read and check for:
        1. Placement
        2. Format
        3. Content
        4. Neatness
    B. Check each line of the document for:
        1. Spelling
        2. Typographical content
        3. Word division
        4. Punctuation
        5. Grammar

SUGGESTED TEACHER ACTIVITIES

General Teacher Preparation

1. Preview unit.
2. Review unit objectives.
3. Make instructional analysis.
4. Assess student learning needs.
5. Decide on lesson domain: cognitive, psychomotor, or affective domain.
6. Select instructional materials based on instructional analysis and student learning needs.
7. Select instructional strategies based on lesson content and student learning needs.
8. Prepare lesson plans from the unit lesson.
9. Prepare additional instructional material.
10. Reserve necessary media and equipment.

Teacher Presentation

1. Present student objectives.
2. Establish rapport with students.
3. Review lesson objectives with students.
4. Relate lesson to prior of future learning.
5. When appropriate, encourage student interaction through questioning, discussions, or some other strategy.
6. Emphasize the value/importance of the unit or activity.
7. Allow time for closure of a lesson.

Reteach Activities

1. Identify area(s) of weakness from results of evaluation.
2. Select unit activities not previously used.
3. Use additional resources and/or create materials based on student learning needs.
4. Use a different teaching strategy in reteaching.
5. Retest.

Specific Teaching Suggestions

1. Provide students with a set of proofreading symbols. These symbols are fairly standard; however, modify the symbols, and add other symbols according to what is used by businesses in your area.

2. Insist that students use the appropriate proofreading marks when editing their papers, or others'.

3. Demonstrate the various techniques of proofreading. Have students practice the various techniques.

4. Set up a schedule (that begins after the unit is completed) for students to take turns serving as editor for the week. Each student will edit one set of papers during his/her week. You need to spot-check the edit and provide an editing grade for the student.

5. Remind students that when proofreading, it is important to verify the information contained in the copy with any related documents or reference materials and with the author. Be sure to check for items such as dates, times, amounts, addresses, and names.

6. Stress the importance of proofreading to the student.

7. Develop a rigid grading system for proofreading.

8. Prepare a bulletin board using student papers that students have corrected with proofreading marks and the corresponding final copies. Make a border using 3" x 5" cards with the proofreading symbols on them.

9. Have a guest speaker discuss the importance of editing and proofreading. Someone in the legal profession would be a good choice since the student can see the obvious relationship between uncorrected errors and the legal problems that may result from those errors.

10. Have students read about proofreading typewritten copy and then practice typing from handwritten or rough draft copy from one or more references.

11. Review the proofreader's marks carefully with students, and have them explain what the marks mean and how to use them.

12. Part IV of the competency test matches competency 5. This was done so that competencies 4 and 6 could be accomplished in a single excercise.

ACTIVITY MATRIX

Activities	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
1	X			X		
2	X				X	
3 Project 1	X				X	
Project 2	X			X		
4 Project 1	X			X		
Project 2	X			X		
5	X			X		
6 Project 1	X			X	X	
Project 2	X			X	X	

COMPETENCY TEST MATRIX

Parts	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
I	X			X		
II	X			X		
III	X			X		
IV	X				X	
V - VI Project 1	X			X		
Project 2	X			X	X	

HANDOUT 1: HINTS ON PROOFREADING

1. TAKE YOUR TIME.
2. READ ALOUD.
3. PROOFREAD A FINAL COPY BEFORE REMOVING IT FROM THE TYPEWRITER OR VIDEO SCREEN.
4. USE A PEN, PENCIL, OR THE FOREFINGER AS A GUIDE.
5. READ THE MATERIAL BACKWARDS IF PROOFREADING FOR SPELLING.
6. USE A DICTIONARY OR WORD BOOK.
7. USE PROOFREADER'S MARKS TO SHOW NEEDED CHANGES.
8. CAREFULLY DOUBLE-CHECK FIGURES.
9. PROOFREAD NAMES AND UNFAMILIAR TERMS, LETTER BY LETTER.

HANDOUT 2: PROOFREADER'S MARKS

	EDITED COPY	CORRECTED COPY
Insert	The ^good editor looks for and corrects errors.	The good editor looks for and corrects all errors.
Transpose	The editor good looks for and corercts all.	The good editor looks for and corrects all errors.
Delete	The good editor looks for and corrects ~~all~~ errors	The good editor looks for and corrects errors.
Do not delete	The good editor looks for and corrects all stet errors.	The good editor looks for and corrects all errors.
Capitalize	the good editor looks for and corrects all errors.	The good editor looks for and corrects all errors.
Lower case	The good Editor looks for and corrects all errors.	The good editor looks for and corrects all errors.
Insert period	The good editor looks for and corrects all errors⊙	The good editor looks for and corrects all errors.
Bring together	The good editor looks for and corre cts all errors.	The good editor looks for and corrects all errors.
A space	The good editor#looks for and corrects all errors.	The good editor looks for and corrects all errors.
Move to the left	[The good editor looks for and corrects all errors.	The good editor looks for and corrects all errors.
Move to the right	The good editor looks for and corrects all] errors.	The good editor looks for and corrects all errors.
Spell out	The good (ed) looks for and corrects all errors	The good editor looks for and corrects all errors.

	EDITED COPY	CORRECTED COPY
Double-space	ds The good editor looks for and corrects all errors.	The good editor looks for and corrects all errors.
Single-space	ss The good editor looks for and corrects all errors.	The good editor looks for and corrects all errors.
New paragraph	¶ The good editor looks for and corrects all errors.	The good editor looks for and corrects all errors.
Center on page	→ Proofreading Marks ←	Proofreading Marks

COMPETENCY TEST

PART I: TERMINOLOGY

INSTRUCTIONS: Match the following terms with their definitions.

A. Capitalization
B. Content
C. Format
D. Grammar
E. Omission
F. Possessive
G. Proofreading
H. Proofreading marks
I. Punctuation
J. Rough draft
K. Run-on sentence
L. Transposition

_______ 1. Letters or words which appear out of the correct sequence.

_______ 2. To leave out or leave unmentioned.

_______ 3. Sentence containing a comma between two independent clauses that are not joined by a coordinating conjunction.

_______ 4. A word or group of words that denotes ownership.

_______ 5. A set of symbols used to indicate the corrections that need to be made on a document.

_______ 6. Layout of the text on a page.

_______ 7. Carefully examining a final document to detect all errors.

_______ 8. The first draft of a document.

_______ 9. A system of rules that defines the structure of a language.

_______ 10. Standardized marks or signs in written matter used to clarify its meaning and separate structural units.

PART II: CHARACTERISTICS OF A GOOD PROOFREADER

INSTRUCTIONS: **Answer the following statements True or False by placing a T for True or an F for False in the space at the left.**

_____ 1. Proofread as fast as you can to save time.

_____ 2. Proofread a final copy before removing it from the typewriter.

_____ 3. Use a paper clip as a guide when proofreading.

_____ 4. Double-check figures.

_____ 5. Proofread names and unfamiliar terms letter by letter.

_____ 6. Read the material backward if proofreading for spelling.

_____ 7. Do not use proofreader's marks to show needed changes.

_____ 8. Read aloud when proofreading.

_____ 9. Poor format is a mechanical error.

_____ 10. Missing letters are mechanical errors.

PART III: TYPES OF ERRORS

INSTRUCTIONS: **In the paragraph below, label each error with one of the following types of errors.**

Appearance	AP	English	E
Author's Writing	AW	Format	F
Content	C	Keyboarding	K

It ws found   that haf the woman working at home still pay som-

eone to take care of the kids. some reports doqument cases of

        women building double doors to their offices or wearing

earmuffs to block out sound of hysterical kids who cant figure out why

mom's home but some how away.

PART IV: PROOFREADING MARKS

INSTRUCTIONS: Fill in the blank with the correct proofreader's marks.

_______ 1. Insert a space

_______ 2. Capitalize

_______ 3. Insert

_______ 4. Bring together

_______ 5. Delete

_______ 6. Single space

_______ 7. Move to the left

_______ 8. Spell out

_______ 9. New paragraph

_______ 10. Center on page

PARTS V & VI: STEPS IN PROOFREADING/TYPES OF ERRORS

Project 1

INSTRUCTIONS: **Compare the following names and numbers. If they are the same, write "S" in the blank; if they are different, write "D" in the blank.**

_____	1.	Kakueri Tanaka	Kakueri Tanoka
_____	2.	Konrad Abernauer	Kanrod Abernauer
_____	3.	John Carteret	John Carteret
_____	4.	Michael Hohenzollern	Michael Hohezollern
_____	5.	Carl Spaatz	Carl Spaatz
_____	6.	1244-643-0169	1244-634-0169
_____	7.	3854-771-9278	3854-771-9278
_____	8.	4973-802-8384	4973-802-8384
_____	9.	1081-694-7495	1001-694-7495
_____	10.	6302-585-6504	3602-585-6504

PARTS V & VI (Continued)

Project 2

INSTRUCTIONS: **Use the steps in proofreading to proofread the following paragraph. Compare the correct paragraph to the incorrect paragraph. Mark the incorrect information using proofreading marks.**

Correct Paragraph

The full-time home work force is growing rapidly, but it includes only 6.7 million of the 26.6 million. If you define telecommuters as those still connected to a company via computer network lines, the number is just less than 3 million.

Incorrect Paragraph

The full time homework force is growing rapidly but it includes only 7.6 milion of the 2.66 million Is you define tellecomuters as these still connected to a company via comupter net work lines, the number is juss less than 8 million.

ANSWERS TO ACTIVITIES

Activity 1

```
      AGREEMENT
       R
PROOFREADINGMARKS
 U     M    I
 N     M    X C
ROUGHDRAFT  E A P
 N     R  D D P R
 S        O P I O
 E OPENPUNCTUATION
 N  U     U N A F
 T  N     M C L R
 E  C CONTENT I E
 N  T     N U Z A
 C  U     T A A D
 E  A       T T I
    TRANSPOSITION
    I       O O G
 HOMONYMS   N N
    N
```

Activity 2 Paragraph evaluated to the satisfaction of the instructor.

1. A command of the English language.
2. Uses appropriate reference materials and resources.
3. Pays close attention to detail.
4. Takes pride in producing accurate work.
5. Understands proofreading/editing marks.

Activity 3

Project 1

1. Appearance
2. Author's writing
3. Content
4. English
5. Formatting
6. Keyboarding

Project 2 Some of these errors may be classified under several error types. Use your judgment on accepting alternatives.

1. E
2. F
3. AP
4. K
5. F
6. E
7. K
8. K/C
9. F
10. AP
11. E
12. F
13. AP
14. E
15. E
16. AP/F
17. E
18. AW
19. AW
20. AP
21. K
22. AW/C
23. C
24. E
25. F

Activity 4

Project 1

1.	X	6.	X	11.	X	16.	X
2.	X	7.	X	12.	X	17.	X
3.	X	8.		13.		18.	X
4.		9.	X	14.	X	19.	
5.		10.		15.		20.	

Project 2

1.	X	6.	X	11.	X
2.	X	7.		12.	
3.		8.		13.	X
4.		9.	X	14.	
5.		10.		15.	

Activity 5

1.	B.	6.	E.	11.	N.
2.	I.	7.	L.	12.	O.
3.	K.	8.	M.	13.	H.
4.	J.	9.	F.	14.	A.
5.	G.	10.	C.	15.	D.

Activity 6

Projects 1-2 Evaluated to the satisfaction of the instructor.

COMPETENCY TEST ANSWERS

Part I

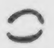
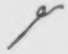
1.	L	6.	C
2.	E	7.	G
3.	K	8.	J
4.	F	9.	D
5.	H	10.	I

Part II

1.	F	6.	T
2.	T	7.	F
3.	F	8.	T
4.	T	9.	F
5.	T	10.	T

Part III Evaluated to the satisfaction of the instructor.

Part IV

1.	$\overset{\#}{\wedge}$	6.	ss[
2.	≡	7.	[
3.	∧	8.	○
4.		9.	¶
5.		10.	→ ←

Parts V & VI

Project 1

1.	D	6.	D
2.	D	7.	S
3.	S	8.	S
4.	D	9.	D
5.	S	10.	D

Project 2 Evaluated to the satisfaction of the instructor.

RESOURCES

TEXTBOOKS

DEVELOPING PROOFREADING SKILL
Gregg Division/McGraw-Hill

SRA REFERENCE MANUAL FOR OFFICE PERSONNEL
Science Research Associates, Inc.

APPLIED SECRETARIAL PROCEDURES
Gregg Division/McGraw-Hill

OFFICE PROCEDURES
MPC Educational Publishers

OFFICE PROCEDURES AND THE PROFESSIONAL SECRETARY
Science Research Associates, Inc.

THE OFFICE
South-Western Publishing Co.

THE REFERENCE GUIDE SECRETARIAL PROCEDURES AND ADMINISTRATION
South-Western Publishing Co.

THE WP BOOK, A REFERENCE MANUAL
John Wiley and Sons, Inc.

TEXT/WORKBOOKS

DEVELOPING EDITING SKILL
Gregg Division/McGraw-Hill

DEVELOPING PROOFREADING SKILL
Gregg Division/McGraw-Hill

EDITED COPY FOR WORD PROCESSING
Dictation Disk Co.

ENGLISH STYLE SKILL-BUILDERS
Gregg Division/McGraw-Hill

PROOFREADING
Glenco Publishing Co.

PROOFREADING PRECISION
South-Western Publishing Co.

TECHNIQUES FOR PROOFREADING AND MAKING CORRECTIONS
MPC Educational Publishers

TYPING FROM ROUGH DRAFTS
MPC Educational Publishers

MEDIA

DEVELOPING AND IMPROVING WRITTEN COMMUNICATION: GRAMMAR, ABBREVIATIONS, AND CAPITALIZATION
Slide/tape package, competency test, and guide
Educational Development and Training Center
East Texas State University

DEVELOPING AND IMPROVING WRITTEN COMMUNICATION: PUNCTUATION, NUMBERS, WRITING SENTENCES AND PARAGRAPHS
Slide/tape package, competency test, and guide
Educational Development and Training Center
East Texas State University

RECOGNIZING PROOFREADER'S MARKS AND USING THEM IN EDITING
Slide/tape package and competency test
Educational Development and Training Center
East Texas State University

REVISING AND PROOFREADING
RMI Media Productions, Inc.

SPELLING FOR THE OFFICE
Slide/tape package and competency test
Educational Development and Training
Center
East Texas State University

COMPETENCY CHECKLIST

ESSENTIAL ELEMENTS: 75.87 (d)/(m)(1)(B)

The student will be provided opportunities to apply appropriate procedures for proofreading and correcting errors.

OBJECTIVE:	Students will be able to recognize errors in written documents and will be able to use proofreading marks as a method of identifying or editing documents.	MASTERY	NON-MASTERY
1.	Use terminology related to proofreading.	______	______
2.	Identify the characteristics of a good proofreader.	______	______
3.	Identify common types of errors.	______	______
4.	Identify steps in proofreading.	______	______
5.	Recognize and write proofreading/editing marks.	______	______
6.	Demonstrate the ability to use common proofreading marks correctly.	______	______
		______	______
		______	______

STUDENT NAME________________________________

SUGGESTED UNIT LESSON PLAN

SECTION I: KEYBOARDING

UNIT III: WORD PROCESSING CONCEPTS

ESSENTIAL ELEMENT: 75.87 (d)/(m)(1)(A)(C)

ALLOCATED TIME: 10-20 Hours

UNIT OBJECTIVE: Students will be able to demonstrate the skill of keyboarding letters, memorandums, tables and charts.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Identify placement of the parts of a business letter.
2. Identify types of letter styles and be able to prepare letters in these formats.
3. Know the difference between open and mixed punctuation.
4. Know the postal service regulations in preparing envelopes.
5. Identify parts and be able to properly format memorandums.
6. Identify the format of a table.
7. Demonstrate the ability to prepare:
    a. Mailable letters using different styles.
    b. Envelopes according to U.S. Postal Service regulations.
    c. Memorandums.
    d. Tables and charts.

FOCUS: Keyboarding has become one of the most common methods for information input. The individual who acquires the skills for inputting and formatting business documents should be able to enter and to successfully progress in the business environment.

DOMAINS: Activities and competency tests have been designed to provide learning experiences utilizing the cognitive, psychomotor, or affective domains. Activities and competency tests are coded on the Activity and Competency Test Matrices.

BASIC SKILLS: Activities and competency tests have been designed to reinforce the basic skills of reading, writing, and/or mathematics. Activities and competency tests have been coded on the Activity and Competency Test Matrices.

CONTENT OUTLINE

- I. Parts of a business letter
    - A. Basic parts
    - B. Special parts
    - C. Letter placement
- II. Letter styles
    - A. Block style
    - B. Modified block style
    - C. AMS simplified
- III. Punctuation
    - A. Open punctuation
    - B. Mixed punctuation
- IV. Addressing envelopes
    - A. Postal service preference
    - B. Location of address on the envelope
    - C. Parts of the address
    - D. Special notations
    - E. Inserting pages into envelopes
- V. Interoffice memorandum
    - A. Description
    - B. Parts of a memorandum
    - C. Preparing a memorandum
- VI. Tables and charts
    - A. General table and chart information
    - B. Preparing a table

SUGGESTED TEACHER ACTIVITIES

General Teacher Preparation

1. Preview unit.
2. Review unit objectives.
3. Make instructional analysis.
4. Assess student learning needs.
5. Decide on lesson domain: cognitive, psychomotor, or affective domain.
6. Select instructional materials based on instructional analysis and student learning needs.
7. Select instructional strategies based on lesson content and student learning needs.
8. Prepare lesson plans from the unit lesson.
9. Prepare additional instructional material.
10. Reserve necessary media and equipment.

Teacher Presentation

1. Present student objectives.
2. Establish rapport with students.
3. Review lesson objectives with students.
4. Relate lesson prior or future learning.
5. When appropriate, encourage student interaction through questioning, discussion, or some other strategy.
6. Emphasize the value/importance of the unit or activity.
7. Allow time for closure of a lesson.

Reteach Activities

1. Identify area(s) of weakness from results of evaluation.
2. Select unit activities not previously used.
3. Use additional resources and/or create materials based on student learning needs.
4. Use a different teaching strategy in reteaching.
5. Retest.

Specific Teaching Suggestions

1. Preview the unit. Localize and individualize the material for your program.
2. Gather additional letters and envelopes to be typed to supplement this unit.
3. Design a bulletin board to introduce the unit. It may include samples of letter styles and envelopes.
4. Explain and discuss the parts of a business letter.
5. Explain and discuss standard letter placement.
6. Gather and display samples of actual business letters. You may want students to participate by bringing actual business letters from home.
7. Discuss the various letter styles.
8. Explain the difference between open and mixed punctuation.
9. Provide additional letters for reinforcement.
10. Explain how to address an envelope using postal service regulations.
11. Explain the parts of an address.
12. Discuss the placements for special notation.
13. Discuss and have students practice inserting letters into envelopes.
14. Explain how to type a memo.
15. Explain parts of a memo.
16. Explain the purpose of a table and chart.
17. Explain the placement of tables and charts.
18. Handouts provided may be used as transparencies if desired.

HANDOUT-1 -- Basic Letter Parts

HANDOUT-2 -- Block Style, Open Punctuation

HANDOUT-3 -- Modified Block Style, Mixed Punctuation

HANDOUT-4 -- Modified Block, Mixed Punctuation

HANDOUT-5 -- Standard Placement

HANDOUT-6 -- Addressed Envelope

HANDOUT- 7 -- Envelope Notations

HANDOUT- 8 -- Memorandum Style 1

HANDOUT- 9 -- Memorandum Style 2

HANDOUT-10 -- Table

Specific Activities and Test Instructions

Activity 4

Project 1 You will need to provide students with paper cut the size of envelopes or the envelopes themselves. You may wish to instruct the students to use two sizes of envelopes and designate which ones will go on each.

Project 2 You will need to provide students with envelopes for this project.

Part III

Project 2 Provide students with an envelope and specify a document for them to properly insert.

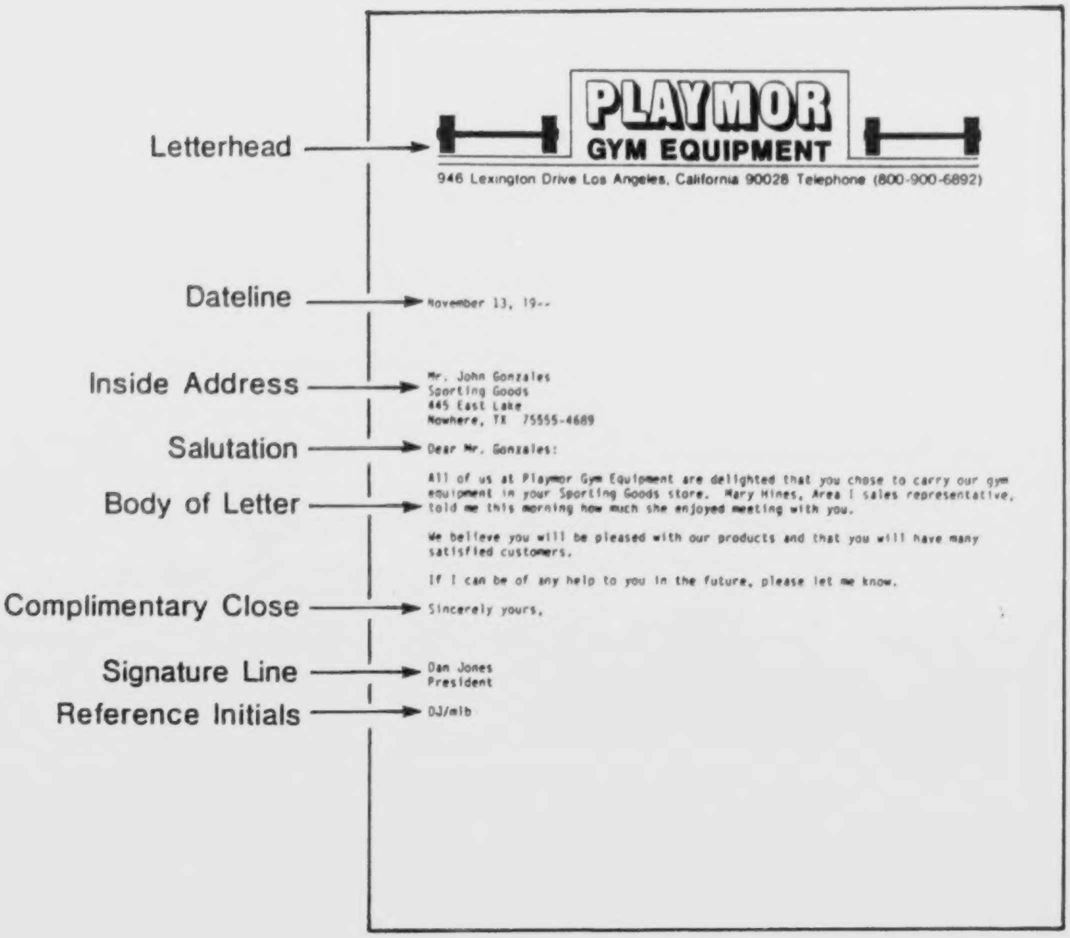
ACTIVITY MATRIX

Activities	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
1 Project 1	X			X		
Project 2	X			X		
Project 3	X	X			X	
2 & 3 Project 1	X	X		X	X	
Project 2	X	X			X	
Project 3	X	X			X	
Project 4	X	X		X	X	
4 Project 1	X	X			X	
Project 2	X	X			X	
5 Memo 1	X	X		X	X	
Memo 2	X	X		X	X	
6 Table 1	X	X			X	X
Table 2	X	X			X	X

COMPETENCY TEST MATRIX

Parts		Domains			Basic Skills		
		Cognitive	Psycho-motor	Affective	Reading	Writing	Math
I	Project 1	X			X		
	Project 2	X			X		
II	Project 1	X			X		
	Project 2	X	X			X	
	Project 3	X			X		
III	Project 1	X			X		
	Project 2	X	X				
IV		X	X			X	
V		X	X			X	

HANDOUT 1: BASIC LETTER PARTS


Letterhead
Dateline
Inside Address
Salutation
Body of Letter
Complimentary Close
Signature Line
Reference Initials

PLAYMOR
GYM EQUIPMENT
946 Lexington Drive Los Angeles, California 90028 Telephone (800-900-6892)

November 13, 19--

Mr. John Gonzales
Sporting Goods
445 East Lake
Nowhere, TX 75555-4689

Dear Mr. Gonzales:

All of us at Playmor Gym Equipment are delighted that you chose to carry our gym equipment in your Sporting Goods store. Mary Hines, Area I sales representative, told me this morning how much she enjoyed meeting with you.

We believe you will be pleased with our products and that you will have many satisfied customers.

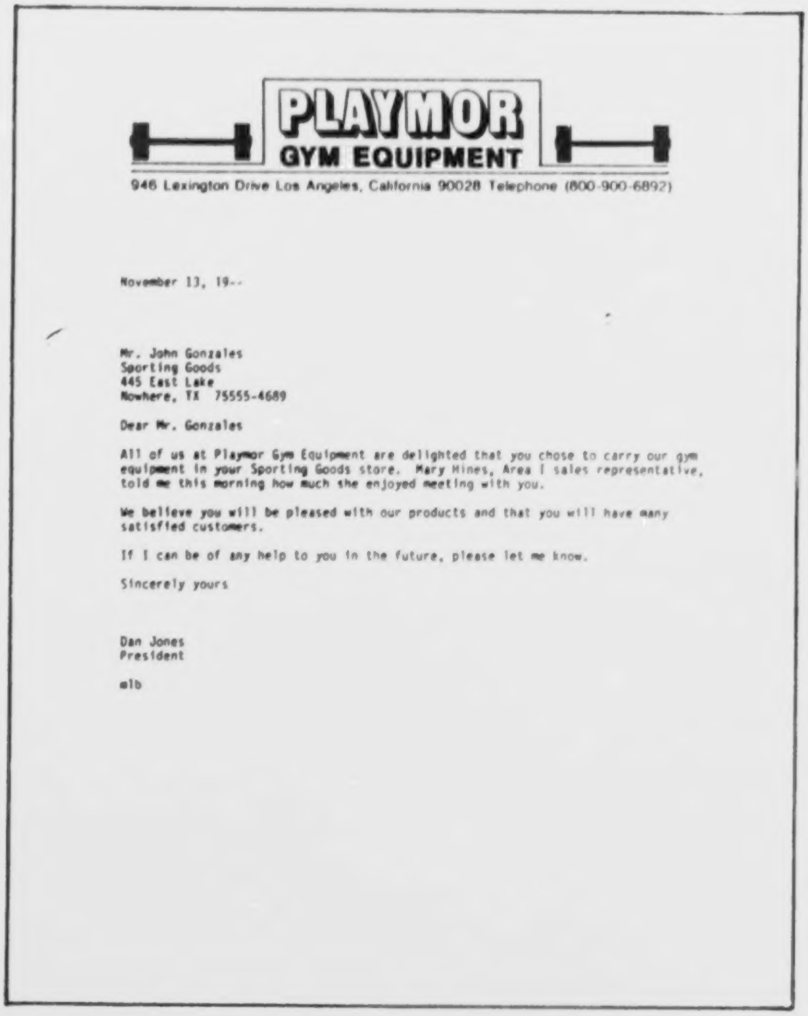
If I can be of any help to you in the future, please let me know.

Sincerely yours,

Dan Jones
President

DJ/mlb

HANDOUT 2: BLOCK STYLE, OPEN PUNCTUATION



PLAYMOR
GYM EQUIPMENT
946 Lexington Drive Los Angeles, California 90028 Telephone (800-900-6892)

November 13, 19--

Mr. John Gonzales
Sporting Goods
445 East Lake
Nowhere, TX 75555-4689

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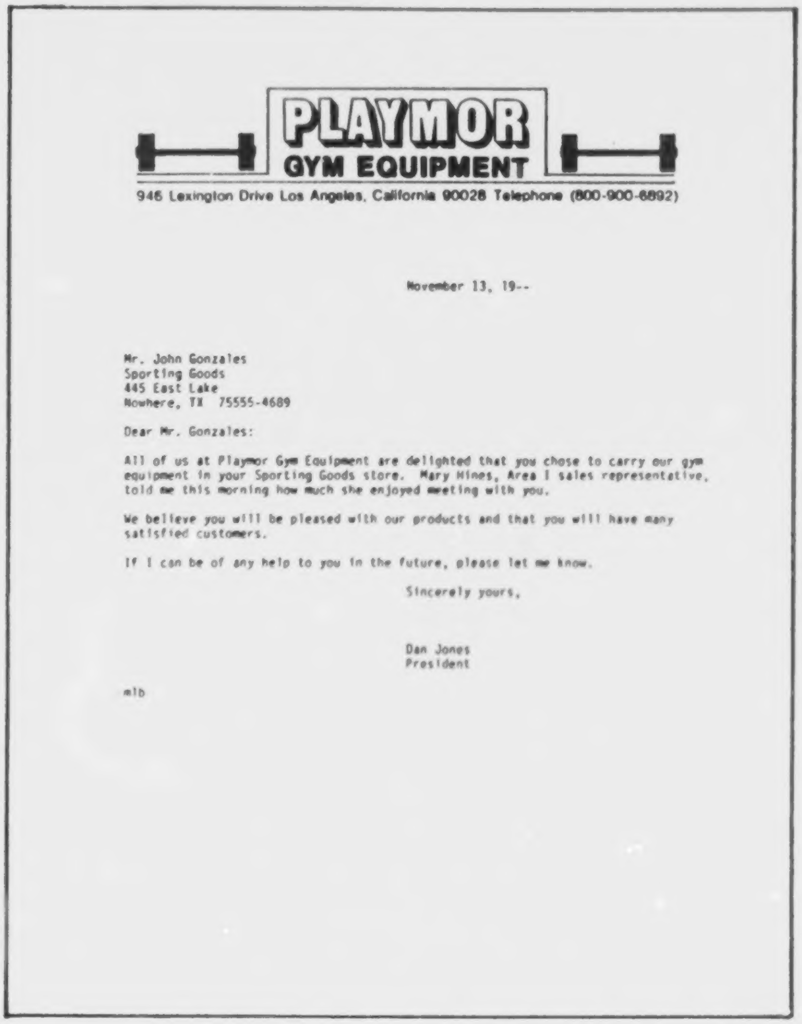
Sincerely yours

Dan Jones
President

mlb

HANDOUT 3: MODIFIED BLOCK STYLE, MIXED PUNCTUATION



PLAYMOR
GYM EQUIPMENT
946 Lexington Drive Los Angeles, California 90028 Telephone (800-900-6892)

November 13, 19--

Mr. John Gonzales
Sporting Goods
445 East Lake
Nowhere, TX 75555-4689

Dear Mr. Gonzales:

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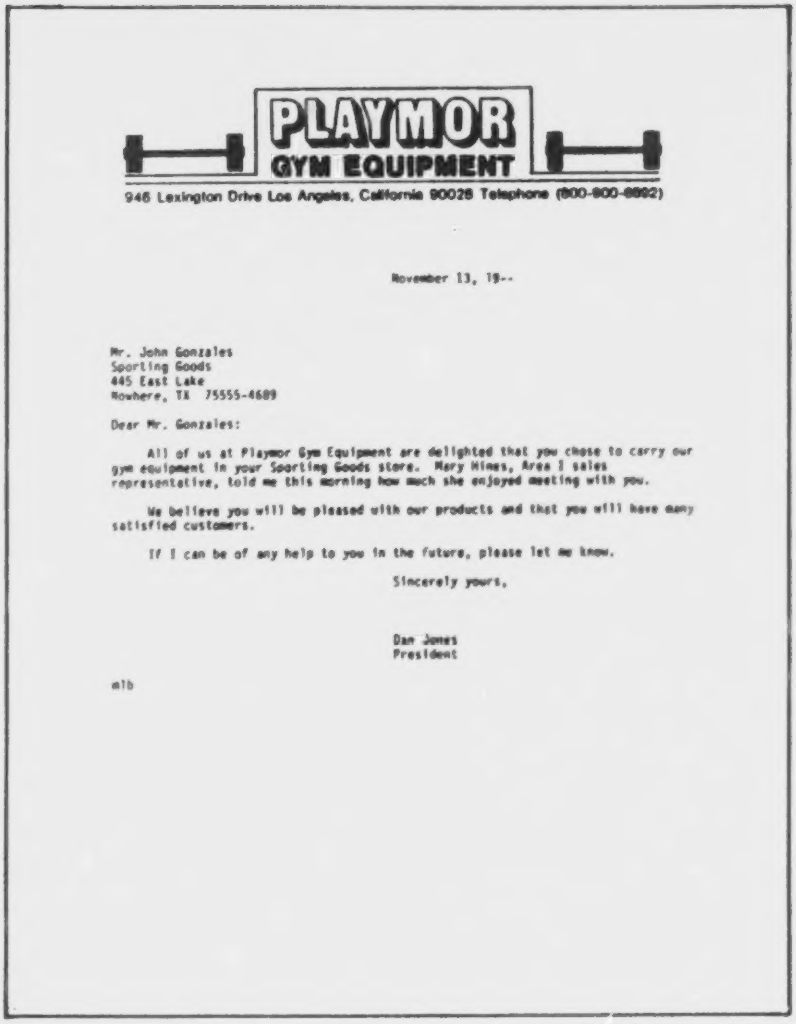
If I can be of any help to you in the future, please let me know.

Sincerely yours,

Dan Jones
President

mlb

HANDOUT 4: MODIFIED BLOCK, MIXED PUNCTUATION



PLAYMOR
GYM EQUIPMENT
946 Lexington Drive Los Angeles, California 90028 Telephone (800-800-8892)

November 13, 19--

Mr. John Gonzales
Sporting Goods
445 East Lake
Nowhere, TX 75555-4689

Dear Mr. Gonzales:

All of us at Playmor Gym Equipment are delighted that you chose to carry our gym equipment in your Sporting Goods store. Mary Hines, Area I sales representative, told me this morning how much she enjoyed meeting with you.

We believe you will be pleased with our products and that you will have many satisfied customers.

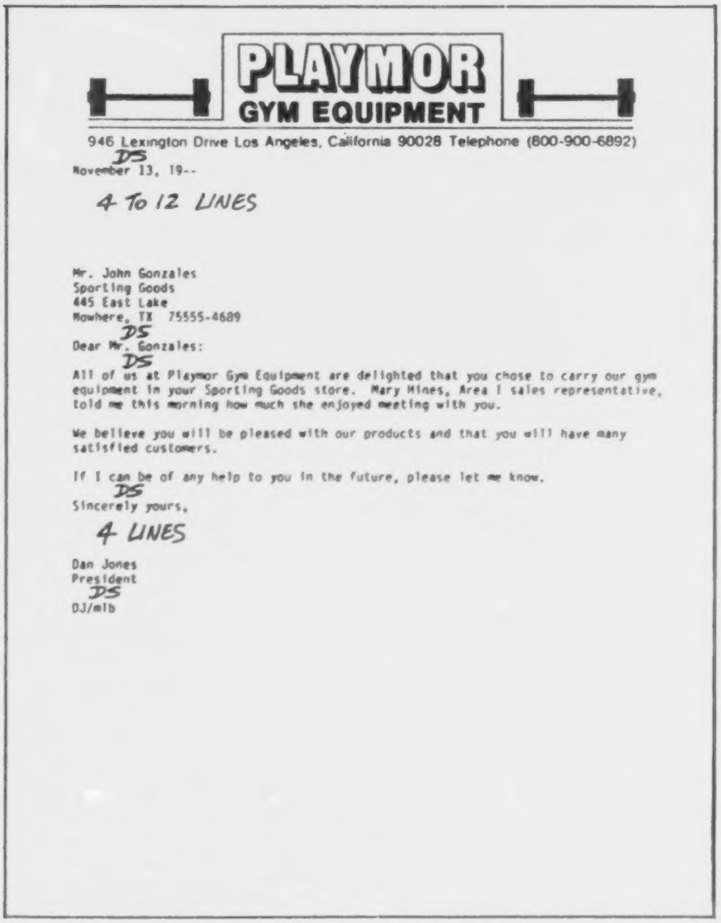
If I can be of any help to you in the future, please let me know.

Sincerely yours,

Dan Jones
President

mlb

HANDOUT 5: STANDARD PLACEMENT



PLAYMOR
GYM EQUIPMENT

946 Lexington Drive Los Angeles, California 90028 Telephone (800-900-6892)

DS

November 13, 19--

4 To 12 LINES

Mr. John Gonzales
Sporting Goods
445 East Lake
Nowhere, TX 75555-4689

DS

Dear Mr. Gonzales:

DS

All of us at Playmor Gym Equipment are delighted that you chose to carry our gym equipment in your Sporting Goods store. Mary Mines, Area I sales representative, told me this morning how much she enjoyed meeting with you.

We believe you will be pleased with our products and that you will have many satisfied customers.

If I can be of any help to you in the future, please let me know.

DS

Sincerely yours,

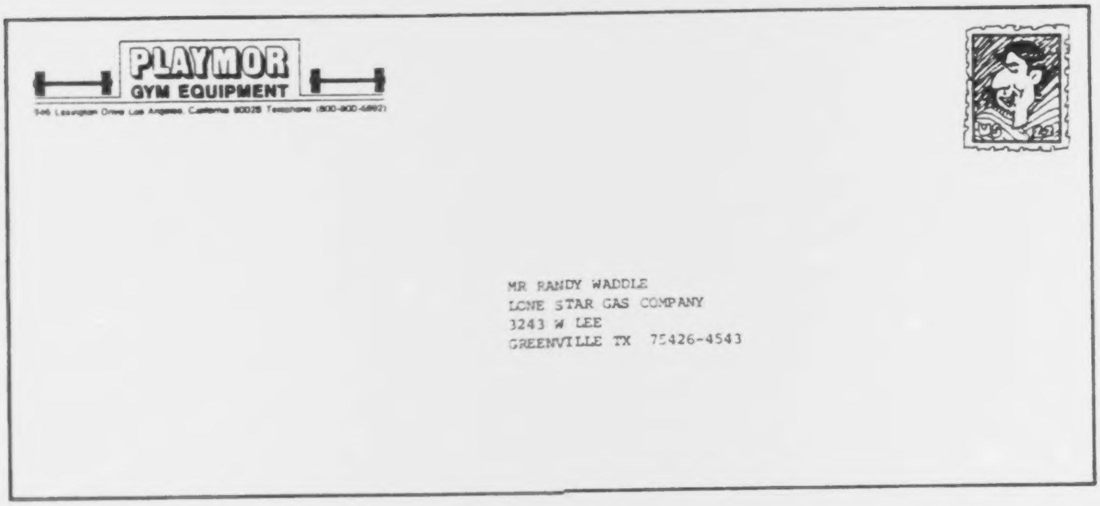
4 LINES

Dan Jones
President

DS

DJ/mlb

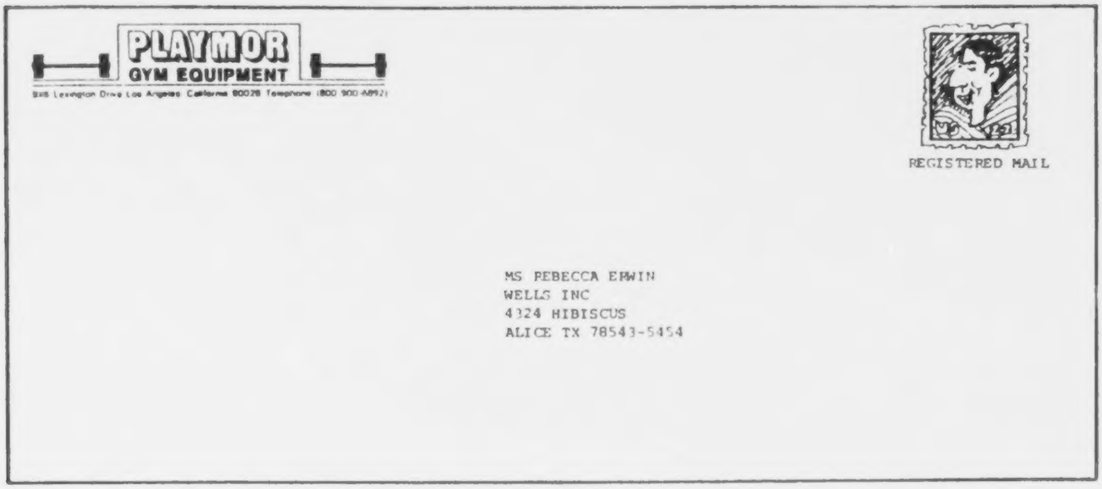
HANDOUT 6: ADDRESSED ENVELOPE



PLAYMOR
GYM EQUIPMENT

MR RANDY WADDLE
LONE STAR GAS COMPANY
3243 W LEE
GREENVILLE TX 75426-4543

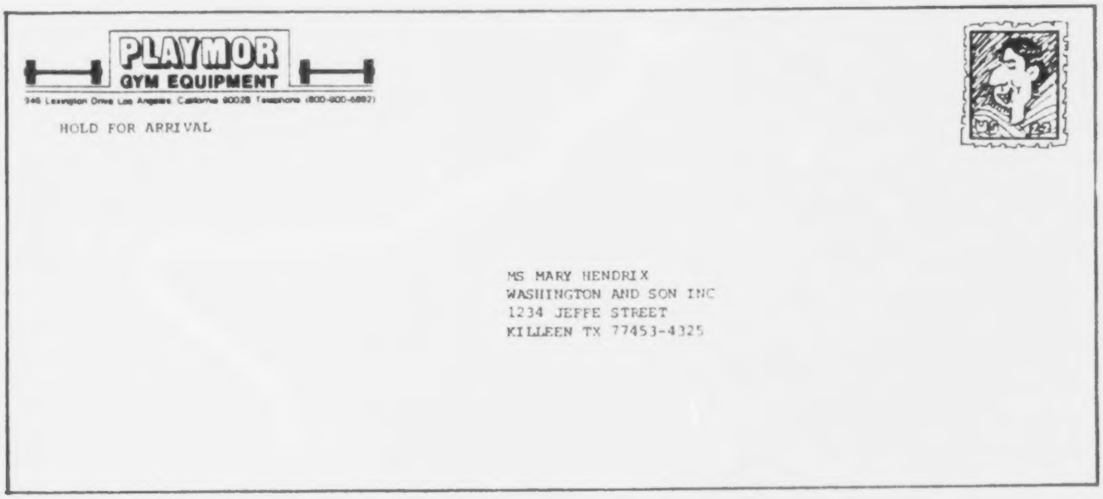
HANDOUT 7: ENVELOPE NOTATIONS



PLAYMOR
GYM EQUIPMENT
946 Lexington Drive Los Angeles California 90028 Telephone (800 900-6892)

REGISTERED MAIL

MS REBECCA ERWIN
WELLS INC
4324 HIBISCUS
ALICE TX 78543-5454

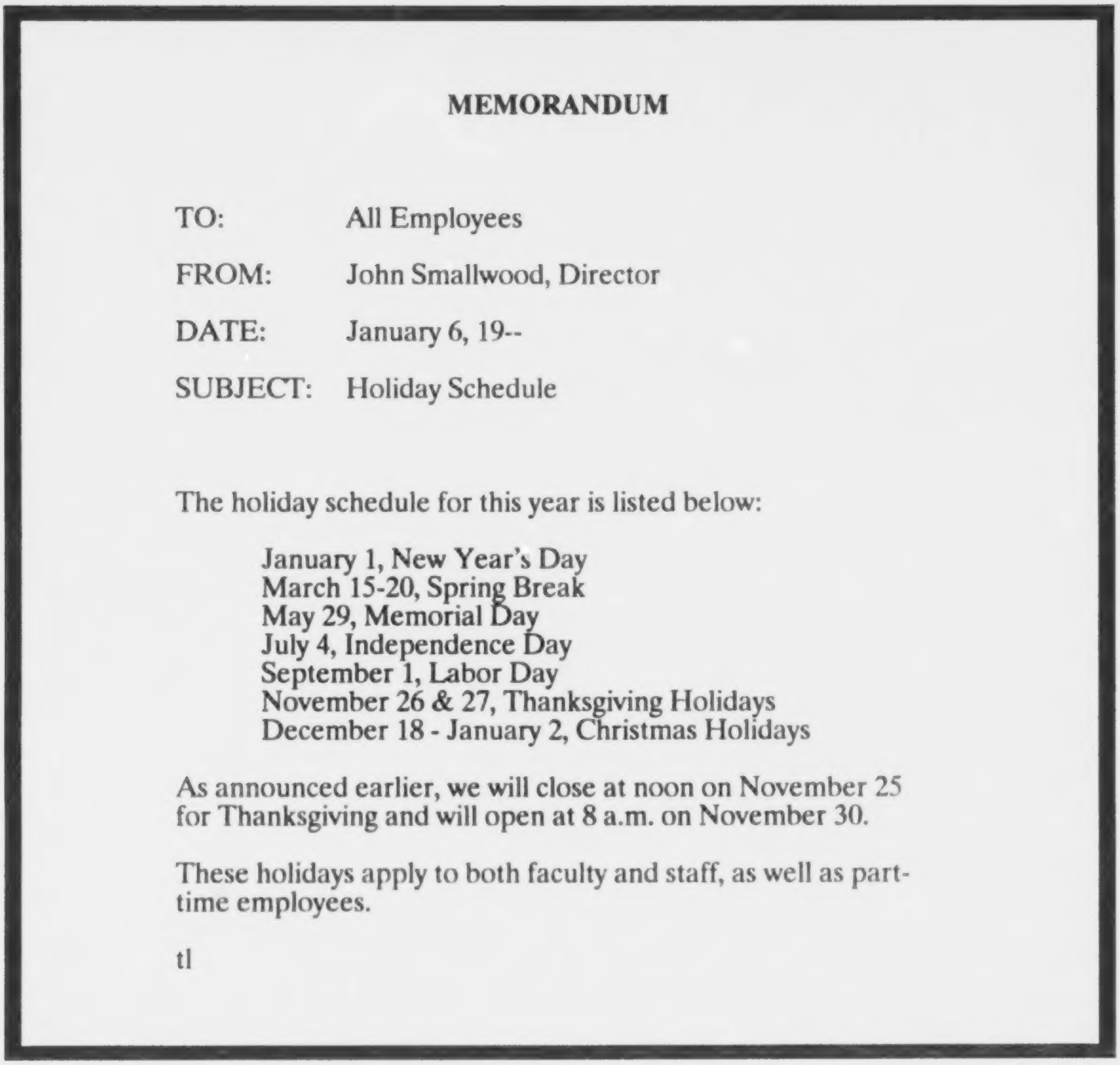


PLAYMOR
GYM EQUIPMENT
946 Lexington Drive Los Angeles California 90028 Telephone (800-900-6892)

HOLD FOR ARRIVAL

MS MARY HENDRIX
WASHINGTON AND SON INC
1234 JEFFE STREET
KILLEEN TX 77453-4325

HANDOUT 8: MEMORANDUM STYLE 1



MEMORANDUM

TO: All Employees
FROM: John Smallwood, Director
DATE: January 6, 19--
SUBJECT: Holiday Schedule

The holiday schedule for this year is listed below:

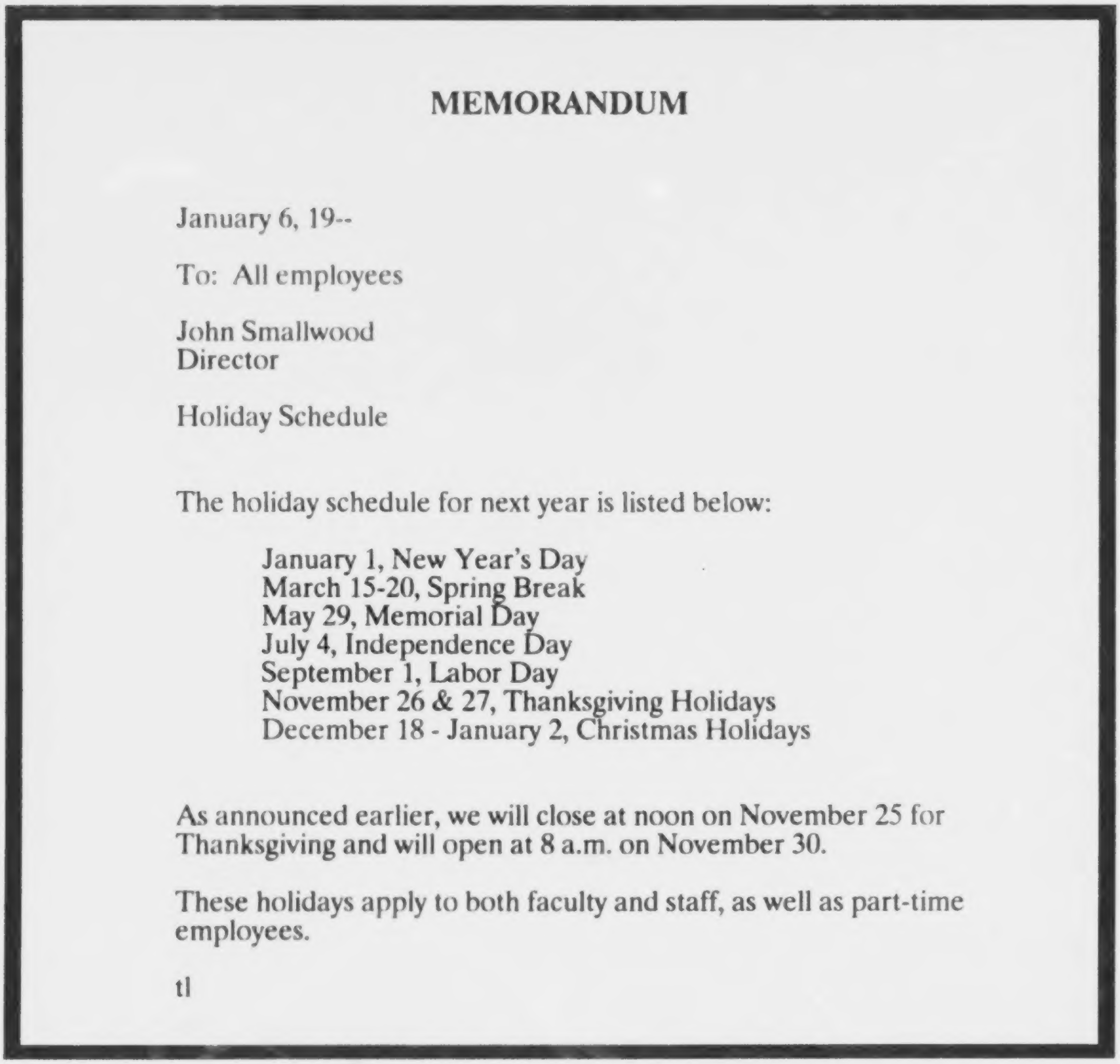
January 1, New Year's Day
March 15-20, Spring Break
May 29, Memorial Day
July 4, Independence Day
September 1, Labor Day
November 26 & 27, Thanksgiving Holidays
December 18 - January 2, Christmas Holidays

As announced earlier, we will close at noon on November 25 for Thanksgiving and will open at 8 a.m. on November 30.

These holidays apply to both faculty and staff, as well as part-time employees.

tl

HANDOUT 9: MEMORANDUM STYLE 2



MEMORANDUM

January 6, 19--

To: All employees

John Smallwood
Director

Holiday Schedule

The holiday schedule for next year is listed below:

January 1, New Year's Day
March 15-20, Spring Break
May 29, Memorial Day
July 4, Independence Day
September 1, Labor Day
November 26 & 27, Thanksgiving Holidays
December 18 - January 2, Christmas Holidays

As announced earlier, we will close at noon on November 25 for Thanksgiving and will open at 8 a.m. on November 30.

These holidays apply to both faculty and staff, as well as part-time employees.

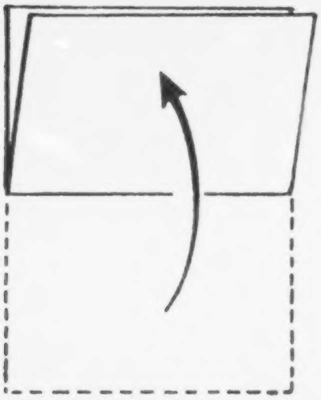
tl

HANDOUT 10: TABLE

TRAVEL BUDGET BREAKDOWN

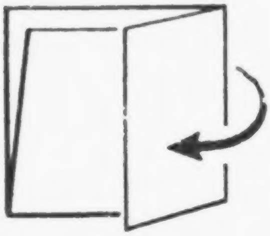
Area	Number of Miles	Number of Days		Amount
A. Special Needs Students in Industrial Programs	4,200	21		$1,480.00
B. Disadvantaged Students in Industrial Programs	6,500	25		2,260.00
C. Vocational Office Education	3,800	18		1,480.00
D. Postsecondary Office Occupations	3,600	18		1,440.00
			TOTAL	$6,660.00

FOLDING/INSERTING PAGES: NO. 6 ENVELOPES



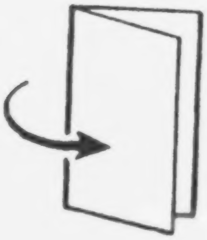
1

FOLD THE PAPER IN HALF.



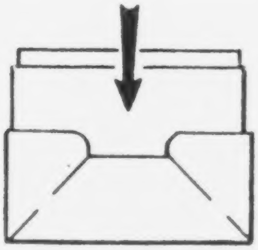
2

FOLD THE RIGHT ONE-THIRD OVER.



3

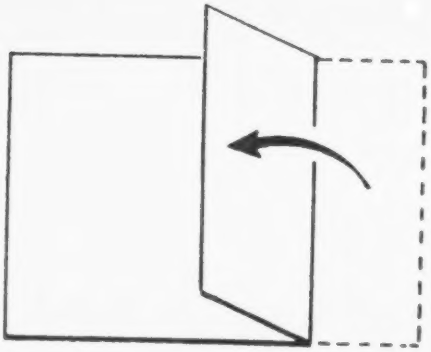
FOLD THE LEFT ONE-THIRD OVER TO ABOUT ONE-HALF INCH.



4

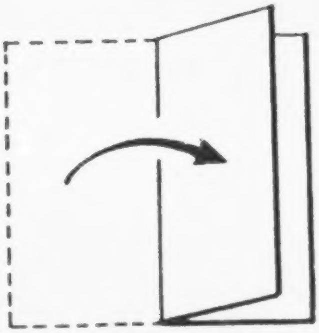
INSERT THE LAST CREASE FIRST.

FOLDING/INSERTING PAGES: NO. 10 ENVELOPES



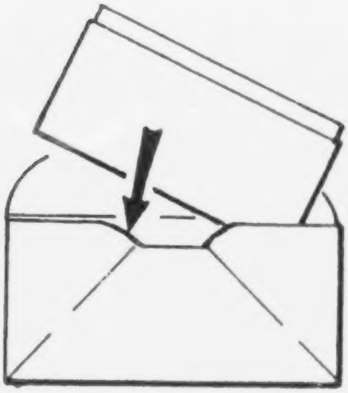
1

FOLD THE BOTTOM EDGE OF THE LETTER UP ONE-THIRD OF THE PAGE.



2

FOLD THE TOP OF THE LETTER DOWN TO ABOUT ONE-HALF INCH FROM THE BOTTOM FOLD.



3

PLACE THE LAST CREASE IN FIRST.

COMPETENCY TEST

PART I: BASIC LETTER TYPING

Project 1

INSTRUCTIONS: **Match the following letter parts with their definitions by placing the correct letter in the space at the left.**

__________ 1. Letterhead
__________ 2. Dateline
__________ 3. Salutation
__________ 4. Inside address
__________ 5. Body of the letter
__________ 6. Complimentary close
__________ 7. Signature line
__________ 8. Reference initials
__________ 9. Addressee notation
__________ 10. Mailing notation
__________ 11. Attention line
__________ 12. Subject line
__________ 13. Enclosure notation
__________ 14. Photocopy notation
__________ 15. Carbon copy notation

A. Includes the name and title of the writer of the letter.

B. Used when letters are addressed to a company but directed to a person or department.

C. Tells the person receiving the letter when the letter was typed.

D. Identifies the typist of the letter.

E. Tells the message.

F. Used to show the purchase of special postal services and provides directions for sorting mail.

G. Used as a title to the body of the letter.

H. Is a printed heading containing the name and address of the company.

I. Used if materials are included with the letter.

J. Addresses the person or company.

K. Used when a photocopy is sent to another person.

L. Shows the name, title, and address of the person or company to whom the letter is written.

M. Used when a carbon copy is sent to another person.

N. Shows how mail is to be handled when received.

O. Closes the letter.

PART I (Continued)

Project 2

INSTRUCTIONS: **Identify the following letter parts by filling in the blanks with the correct terms.**

______________________ 1. Dear Mrs. Smith

______________________ 2. January 18, 19--

______________________ 3. Enc.

______________________ 4. CONFIDENTIAL

______________________ 5. SPECIAL DELIVERY

______________________ 6. pc: Jane Hendrix

______________________ 7. RE: Annual Fees

______________________ 8. pf

______________________ 9. Tom Henry
Sales Representative

______________________ 10. Sincerely yours,

PART II: LETTER STYLES AND PUNCTUATION

Project 1

INSTRUCTIONS: **Write the letter of the answer that correctly answers the following questions or completes the statements.**

_____ 1. What type of letter style has all lines beginning at the left?

A. Modified block style
B. Block style
C. AMS letter style

_____ 2. In modified block style, what does not begin at the left margin?

A. Dateline
B. Complimentary close
C. Signature
D. All of these

_____ 3. Open punctuation requires:

A. A colon after the salutation
B. No punctuation after the salutation
C. No punctuation after the complimentary close
D. Both B and C

_____ 4. Mixed punctuation requires:

A. A colon after the salutation
B. No punctuation after the salutation
C. A comma after the complimentary close
D. Both A and C

_____ 5. The AMS letter format omits which of the following:

A. Dateline
B. Salutation
C. Signature line
D. Body

PART II (Continued)

Project 2

INSTRUCTIONS: **Key in the following information first using the full-block style, then in the modified block style.**

February 16, 19__

Mrs. Lilliam McRoberts
2629 Briardale
Forney, TX 75201

Dear Mrs. McRoberts:

The legal papers which we discussed during our recent telephone conversation are enclosed for your consideration and signature.

Please read the second paragraph carefully to determine if it is stated as you desire. If you are in full agreement, sign each of the three lines which are indicated by a red "X" and return the papers to me.

As soon as I receive the papers, I will notify Mr. Thompson of your approval, and he can continue with the sale as scheduled.

Yours truly,

J. B. Turner
Attorney-At-Law

ris

Enclosure

PART II (Continued)

Project 3

_______ 1. What is typed a double space below the letterhead?

A. Inside address
B. Salutation
C. Dateline
D. Both A and C

_______ 2. How may spaces do you leave between the date and the inside address?

A. 3
B. 2
C. 4 to 12
D. 12 to 14

_______ 3. What is typed a double space below the inside address?

A. The body of the letter
B. Salutation
C. Subject line
D. Mailing notation

_______ 4. How many times do you return the carrier between the complimentary close and the signature line?

A. 2
B. 3
C. 4
D. 5

_______ 5. What is typed a double space below the signature line?

A. Enclosure
B. Carbon copy notation
C. Reference initials
D. Nothing

_______ 6. What are the side margins for a medium-length letter?

A. 2
B. 1 1/2
C. 1/2
D. 1

PART III: ADDRESSING ENVELOPES AND FOLDING DOCUMENTS

Project 1

INSTRUCTIONS: **Answer the following statements True or False by placing a T for True or an F for False in the space at the left.**

_____ 1. The postal service prefers all words capitalized when addressing envelopes.

_____ 2. The postal service prefers that you use punctuation when addressing envelopes.

_____ 3. The postal service prefers the name of a state spelled out when addressing envelopes.

_____ 4. The postal service prefers the ZIP + 4-digit extension ZIP Codes to be used when addressing envelopes.

_____ 5. The size of a large envelope is "No. 6."

_____ 6. The size of a small envelope is "No. 10."

_____ 7. Type the street number and name or the route number and box number on the last line of the address.

_____ 8. A mailing notation is placed a triple space below the stamp position.

_____ 9. An addressee notation is placed a triple space below the return address at the left.

_____ 10. The name of the city, state abbreviation, and the ZIP code are placed on the first line of an address.

Project 2

INSTRUCTIONS: **Properly fold and insert the document provided by your teacher into a large envelope.**

PART IV: MEMORANDUM

INSTRUCTIONS: **Type the following memorandum in proper format.**

MEMO

TO: ALL SECRETARIAL PERSONNEL

FROM: Joan Leggett, President

DATE: May 20, 19__

SUBJECT: Secretaries Association Monthly Meeting

The monthly meeting of the Secretaries Association of Dallas will be held on Tuesday, June 10, in the Blue Room of the University Inn, 2167 Main Street, Dallas, Texas. Dinner will be at 7 p.m., and tickets are $6 per person.

Sara Yarnall will be our guest speaker for the evening. Her topic will be on the merging of word processing and data processing.

Please let us know by June 5 whether you will be able to attend.

PART V: TABLE

INSTRUCTIONS: **Type the following information in table format on a full sheet of paper.**

NELSON'S, INC

Commission Earning Report
Second Quarter, 19—

Name	Dist. No	Total Sales	Total Commission
Bill Hale	7	87 $~~43~~,792.20	$8,779.22
Sandy Thompson	15	90,709.32	9,070.93
Tammi Weers	3	78,522.78	7,852.28
Tausha Bellah	8	29,256.13	2,925.61
Don Adams	2	57,559.23	5,755.92
Karl Perkins	9	68,842.52	6,884.25
			$41,268.21
TOTALS		$412,682.18	

15[illegible]

ANSWERS TO ACTIVITIES

Activity 1

Project 1

1. Letterhead
2. Dateline
3. Inside address
4. Salutation
5. Body of the letter
6. Complimentary close
7. Signature line
8. Reference initials

Project 2

1. B
2. G
3. N
4. D
5. C
6. M
7. L
8. H
9. J
10. K
11. D
12. I
13. E
14. F
15. J
16. K
17. D
18. G
19. J
20. L
21. I
22. G
23. A
24. D
25. I

Project 3 Evaluated to the satisfaction of the instructor.

Activities 2-6 Evaluated to the satisfaction of the instructor.

COMPETENCY TEST ANSWERS

Part I

Project 1

1. H
2. C
3. J
4. L
5. E
6. O
7. A
8. D
9. N
10. F
11. B
12. G
13. I
14. K
15. M

Project 2

1. Salutation
2. Dateline notation
3. Enclosure notation
4. Addressee notation
5. Mailing notation
6. Photocopy notation
7. Subject line
8. Reference initials
9. Signature line
10. Complimentary close

Part II

Project 1

1. B
2. D
3. D
4. D
5. B

Project 2 Evaluated to the satisfaction of the instructor.

Project 3

1. C
2. B
3. C
4. C
5. B
6. B

Part III

Project 1

1. T
2. F
3. F
4. T
5. F
6. F
7. F
8. T
9. T
10. F

Project 2

1. Fold bottom edge of letter up one-third of the page.
2. Fold top of letter down to about one-half inch from the bottom fold.
3. Place last crease in envelope first.

Part IV Evaluated to the satisfaction of the instructor.

Part V Evaluated to the satisfaction of the instructor.

COMPETENCY CHECKLIST

ESSENTIAL ELEMENT: 75.87(d)/(m)(1)(A)(C)

The student shall be provided opportunities to demonstrate the skills involved in keyboarding and identify information processing concepts in keyboarding.

OBJECTIVE:	**Students will be able to demonstrate the skill of keyboarding letters, memorandums tables and charts.**	MASTERY	NON-MASTERY
1.	Identify placement of the parts of a business letter.		
2.	Identify types of letter styles and be able to prepare letters in these formats.		
3.	Know the difference between open and mixed punctuation.		
4.	Know the postal service regulations in preparing envelopes.		
5.	Identify parts and be able to properly format memorandums.		
6.	Identify the format of a table.		
7.	Demonstrate the ability to prepare:		
	a. Mailable letters using different styles.		
	b. Envelopes according to U.S. Postal Service regulations.		
	c. Memorandums.		
	d. Tables and charts.		

STUDENT NAME ____________________________________

SECTION I: KEYBOARDING

UNIT I: KEYBOARDING SKILLS

UNIT OBJECTIVE: The student will be able to develop concepts and build skills needed to process information accurately and quickly using the keyboard.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Identify terminology related to basic keyboarding.
2. Recognize and demonstrate proper keyboarding techniques.
3. Demonstrate keyboarding improvement in both speed and accuracy.
4. Demonstrate the knowledge and ability to perform basic keyboarding and formatting.
5. Identify components and special keys on the microcomputer keyboard.

FOCUS: Keyboarding still remains the principal method for original data entry. Computer keyboarding continues to gain momentum. Some forecasters are predicting that by the twenty-first century, the computer will be used in 80 percent of the jobs. Attaining keyboarding skills should be considered as a priority for persons entering the work force or pursuing additional education.

TERMINOLOGY

Backspace	Moves the carrier back one space each time it is touched.
Correction key	Used to erase type from the paper.
Carrier	Moves the element across the paper.
Cylinder	Holds and moves the paper in and out.
Cylinder knob	Turns the cylinder.
Disk liner	A sleeve of cloth-like material similar to a handiwipe.
Disk jacket	A plastic material enclosing the liner.
Double space	Leaving one blank line between displayed or printed lines of copy.
Drive hub access	Allows the drive to rotate the disk.
Element	Prints the letter, number, or symbol that is touched on the keyboard.
Head access	This hole allows the read/write head to approach within 1/10,000 of an inch to transfer data.
Index hole access	The disk drive shines a light into this spot and stops the spinning of the disk when the hole is properly aligned at the beginning of the disk.
Left margin stop	Stops the carrier at a set left point.
Line scale	Numbers the spaces.
Line-space regulator	Sets spacing (single or double).
Off-On switch	Turns power on or off.
Paper bail and rollers	Hold paper against the cylinder.
Paper guide	Sets centering point of paper.
Paper release	Frees the paper for straightening or removing.
Pitch selector	Used to select pica or elite pitch depending on the pitch of the element being used.

Plastic disk	A thin flexible plastic material coated with a magnetic oxide; similar to a cassette tape.
Position indicator	Shows the space at which the typewriter is ready to print.
Return key	Moves the carrier back to the left margin and moves the paper up.
Right margin stop	Stops the carrier at a set right point.
Single space	Copy has no blank line space between lines.
Space bar	Moves the carrier one stroke each time it is touched.
Shift	Used to type capitals.
Shift lock	Used to lock shift mechanism so that all letters are capped.
Tab	Used to move carriage to tab stops that have been chosen.
Write-protect notch	Used to prevent accidental recording over data already on the disk.

UNIT OVERVIEW

I. Keyboarding techniques

- A. Preparing to type
  1. Putting your work in order
     - a. Place the typewriter even with the front edge of the desk.
     - b. Place your activity sheet to the right of the typewriter.
     - c. Place extra paper to the left.
  2. Putting paper in the typewriter
     - a. Take a piece of paper with your left hand.
     - b. Put it behind the cylinder against the paper guide.
     - c. Turn the cylinder knob with your right hand to put the paper in.
     - d. Straighten the paper.
       - (1) The paper should be straight at the top and bottom corners.
       - (2) To make the paper straight, loosen the paper by using the paper release.
     - e. Place the paper behind the paper bail and rollers.
  3. Sitting correctly
     - a. Sit back in the chair with body straight.
     - b. Place both feet on the floor with one foot slightly in front of the other.
     - c. Have forearms parallel to the slant of the keyboard.
     - d. Have wrists low and relaxed.
     - e. Keep eyes on copy, not the keyboard.
- B. Finger position
  1. Put hands on home row keys.

a. Left hand on A, S, D, and F

(1) Forefinger = F

(2) Second finger = D

(3) Third finger = S

(4) Little finger = A

b. Right hand on J, K, L, and ;

(1) Forefinger = J

(2) Second finger = K

(3) Third finger = L

(4) Little finger = ;

2. Curve fingers and hold them close to but not touching the home keys.

3. Correct fingering.

C. Keystroking

1. Turn the ON-OFF switch to the ON position.

2. Use the right thumb to strike the space bar.

3. Use the right little finger to press the return key.

4. Return the finger to its home position.

D. Removing the paper

1. Pull forward the paper bale.

2. Use the paper release lever with your right hand.

3. Take the paper out with your left hand.

4. Return the paper release lever.

(NOTE: When you are finished for the day, always turn off the typewriter.)

II. Basic typing facts

A. Type sizes

1. Pica
    a. There are 10 spaces to the horizontal inch.
    b. There are 85 spaces in an 8 1/2-inch sheet of typing paper (8 1/2 x 10 = 85).
    c. The center point of 8 1/2-inch paper is 42 1/2 (85 divided by 2 = 42 1/2); for convenience use 42.
2. Elite
    a. There are 12 spaces to the horizontal inch.
    b. There are 102 spaces in an 8 1/2-inch sheet of typing paper (8 1/2 x 12 = 102).
    c. The center point of 8 1/2-inch paper is 51 (102 divided by 2 = 51); for convenience use 50.

B. Setting margins
1. Divide the number of spaces in the line by 2 and subtract the quotient from the center you are using. This is the left margin.
2. Add the same number to the center, plus 5 for the bell warning, to determine the right margin.
3. If you are going to use 60 spaces per line for typing, then 1/2 of 60 = 30; 30-50 (center) = 20 for left margin; and 30 + 50 (center) + 5 (bell) = 85 for right margin.

C. Clearing and setting tabs
1. Clearing tab stops
    a. Move the typing element to the far right.
    b. Hold the tab clear key down and strike the return key.
2. Setting tabs
    a. Move carrier to where you want a tab and strike the tab set key.
    b. Repeat for all tab stops.
3. Use your left little finger to strike the tab key.

D. Horizontal centering

1. Put paper in the typewriter with the left edge at zero.
2. Move margin stops to end of scale.
3. Clear all tab stops.
4. Set a tab stop at the center of the paper.
5. Tab to center of paper.
6. Backspace (use your right little finger) once for every two letters, figures, spaces, or punctuation marks in line.
7. Do not backspace for an odd or leftover stroke.
8. Begin to type where the backspacing ends.

E. Vertical centering

1. Count the lines and blank-line spaces needed to type the problem.
2. Subtract the lines to be used from the lines available (66 lines for a full sheet of paper and 33 lines for a half sheet of paper).
3. Divide by 2 to get the top and bottom margins (disregard any odd or left over lines).
4. Space down from the top edge of paper 1 more than the number of lines to be left in top margin.
5. Formula: $\frac{\text{lines available-lines used}}{2}$ = top margin.

III. Computer keyboarding concepts

A. **Computer system**--makes possible three basic operations: input, processing and storage, and output.

1. **Input devices**--are part of the computer that takes in information.

    a. **Keyboard**--is similar to a typewriter keyboard and is the most common input device.

        (1) **Alpha/numeric keys**--these keys are the same on any typewriter. They include:

            (a) **Alphabetic keys**--include the standard typewriter alphabetic keys.

(b) **Number/Symbol keys**--are found on the top row of the keyboard.

(c) **Punctuation keys**--are activated by holding down the shift key and the specific character key.

(2) **Ten-key pad**--ten numeral keys generally located on the right side of the keypad which may be used for data entry. Activated by depressing the NUMLOCK key.

(3) **Cursor movement keys**--directional keys that control cursor movement in relation to the screen; perform the following functions:

(a) **Arrow keys**--move the cursor one space in any of the four directions.

(b) **Home key**--moves the cursor to the upper left space on the screen.

(c) **Page up key**--moves the document up one full screen.

(d) **Page down key**--moves the document down one full screen.

(e) **End key**--moves the cursor to the end of the line.

(f) **Backspace key**--moves the cursor back one space, deleting the character which occupied that space.

(g) **Tab right/left keys**--move the cursor to set tab or default position.

(4) Other special keys

(a) **Enter/return key**--is used to tell the computer to process whatever instruction was just typed, and it moves the cursor back to the left margin.

(b) **Escape key**--is a special key that is usually program-specified to leave certain programs or menu structures.

(c) **Shift key**--can be depressed with alpha keys to make capitals.

(d) **Caps lock key**--enables the operator to type in all CAPS.

            (e) **Insert key**--is depressed in order to type over existing characters.

            (f) **Delete key**--can be used to erase screen characters.

            (g) **NUMLOCK key**--enables the number keypad to be used for entering numbers.

            (h) **PrintScr key**--prints the screen when depressed (this may not work on some programs).

        (5) **Function keys**--vary from computer to computer.

            (a) Usually 10 to 12 keys that can be assigned functions by the software programs.

            (b) Located either to the left of the alphabetic keys or above the number keys.

    b. Mouse

        (1) It controls cursor movement.

        (2) It has a button for giving commands.

    c. **Graphics tablet**--is used to input graphs or pictures

    d. Light pen

        (1) Light is pressed against the screen.

        (2) Used by artists and designers in place of graphics tablet.

    e. **Modem**--is a device that changes data from a computer into a form that can be transmitted over telephone lines.

2. **Central processing unit**--is the most complex and powerful part of the computer system. It is sometimes referred to as the CPU or "brains" of the computer.

    a. Control unit

        (1) Interprets all program steps.

        (2) Issues instructions to carry out the programs.

        (3) Directs overall functioning of other units.

        (4) Regulates data flow.

b. **Arithmetic logic unit**--controls all arithmetic and logic operations.

3. Storage devices

a. **Random access memory (RAM)**--is the computer's temporary memory.

b. **Read only memory (ROM)**--is the computer's permanent memory.

c. **Floppy disks**--are round thin plastic records that receive and store information for a computer.

d. **Hard disk**--works much the same as a floppy disk, but it is made of thin metal and is usually encased in the computer.

4. **Output devices**--let the computer communicate the results of its work.

a. Video monitor

(1) Monochrome (black and white)

(2) Color

b. Printers

(1) **Dot matrix**--uses a moveable printhead that consists of matrix of small tubes each containing a fine wire or needle.

(2) **Daisy wheel**--uses a petal-shaped wheel with the tip of each petal containing a single character.

(3) **Laser**--uses a microthin beam of light to draw each character into specially treated, heat-sensitive paper.

(4) **Thermal**--burns the character into specially treated, heat-sensitive paper.

(5) **Ink jet**--shoots a steady stream of ink droplets toward the paper.

B. Disk handling techniques

1. Parts of the diskette

a. Drive hub access

b. Head access

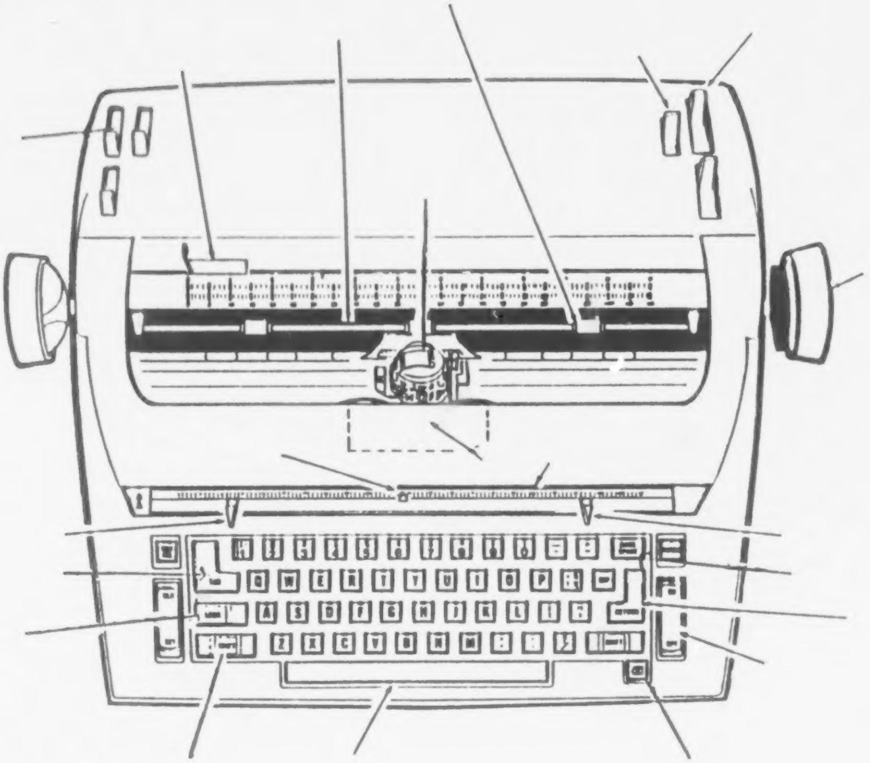
- c. Index hole access
- d. Write-protect notch
- e. Plastic disk
- f. Disk liner
- g. Disk jacket

2. Damage to diskette
    - a. Disk is thin and flexible
        - (1) Can be easily bent or torn.
        - (2) Can be stretched.
    - b. Contamination
        - (1) Dust, hair, smoke, etc., can abuse damage.
        - (2) Can cause damage to read/write head.
3. Prevention of diskette damage
    - a. Never write on a disk except with a felt-tip pen.
    - b. Store upright and away from heat or direct sunlight.
    - c. Never touch exposed areas.
    - d. Never bend or use paperclips on a disk.
    - e. Never place near a magnet or magnetized object (scissors, screwdrivers, paperclips, etc.).

ACTIVITY 1: TERMINOLOGY IDENTIFYING PARTS OF TYPEWRITER

Project 1

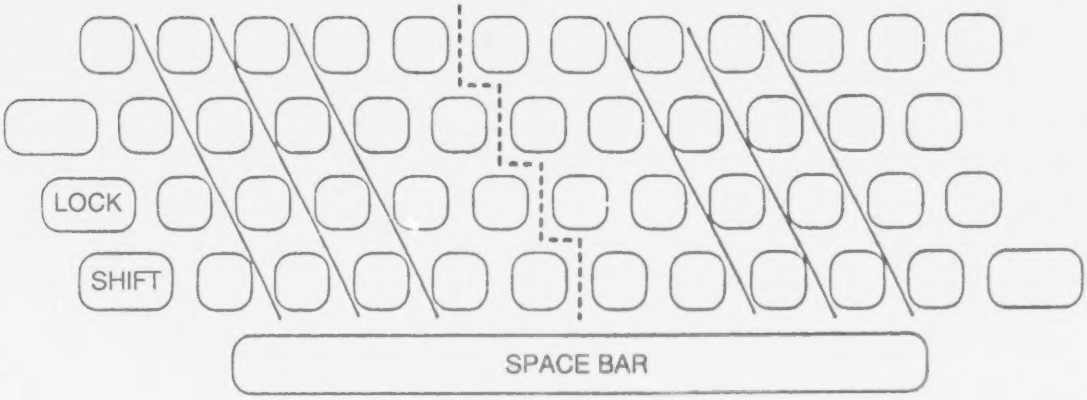
INSTRUCTIONS: Label all parts of the typewriter.



ACTIVITY 1 (Continued)

Project 2

INSTRUCTIONS: **Label all parts of the keyboard.**


LOCK
SHIFT
SPACE BAR

ACTIVITY 2: BEGINNING KEYBOARDING TECHNIQUES

INSTRUCTIONS: **Follow instructions below for applying proper keyboarding techniques:**

1. Practice appropriate keyboarding techniques:
    a. Adjust chair to desirable height.
    b. Place curved fingers over homerow keys (left hand--ASDF; right hand--JKL;).
    c. Place feet flat on floor.
    d. Keep the palms of hands off the keyboard or table.
    e. Keep back straight.
    f. Keep elbows at side of body.
    g. Operate space bar with right thumb.

2. Using the basic keyboarding techniques listed above, plus any others identified by your teacher, practice striking the homerow keys.

3. Be sure you are using the correct techniques, and be sure your fingers are on the homerow keys. If uncertain, you may want to ask your teacher to observe you as you keyboard.

4. When you learn the basic keyboarding techniques, you are ready to progress.

5. Your teacher will provide you with instructional materials that consist of information, drills, and exercises which will enable you to master additional keyboarding techniques.

6. A point to remember in the beginning is to develop the habit of reading and following directions:

    a. First, listen to your teacher. Make notes if necessary.

    b. Second, read the instructional material carefully. Even if you have difficulty, try it yourself first before asking your teacher for assistance. You will soon discover that you can work out some of the problems on your own.

ACTIVITY 3: INCREASING KEYBOARDING SPEED AND ACCURACY

INSTRUCTIONS: **After all keys are learned or reviewed, work on skill building for both speed and accuracy using a combination of brief timings and typing drills. Repeat the drills until you have increased your words per minute (WPM) and accuracy. Use the keyboarding skill-building chart to record your progress.**

SKILL BUILDING CHART

Date	Timing No.	Speed	Accuracy %			Date	Timing No.	Speed	Accuracy %

____
STUDENT NAME

ACTIVITY 4: FORMATTING PROCEDURE

Project 1

INSTRUCTIONS: **Following the instructions given in the Unit Overview, calculate the margins and type the following material.**

Problem 1

Use a half sheet of paper. Start on line 15 and double-space. Set margins for a 40-space line; key in the following sentences. Repeat procedures for 50- and 60-space lines.

Well, you see, she came to us to ask us to give our okay for her to buy 9 or 10 more horses. We had to see her when she came and tell her this word: yes.

Problem 2

Use a half sheet of paper. Start on line 15 and double-space. Set margins for a 40-space line and key in sentences. Repeat for 50- and 60-space lines.

Now is the time for the good one to come and join the blast. When in the world can we go somewhere to have fun and relax? Once the children began to cry, she just went on and on and on.

ACTIVITY 4 (Continued)

Project 2

INSTRUCTIONS: **Following the instructions given in the Unit Overview, type the following tabulated material.**

Problem 1

Use a half sheet of paper. Set your left margin at 27 for pica or 35 for elite. Leave six spaces between tabulations. Start on line 13 and double-space.

hat	rat	Sal	for
met	Mom	bad	fad
gal	was	run	pun
sad	rad	day	Dad

Problem 2

Use a half sheet of paper. Set your left margin at 22 for pica or 30 for elite. Leave six spaces between tabulations. Start on line 13 and double-space.

should have been	have been	we hope
I should be able	thank you	you are
you will be able	of course	to know
I will have been	he wanted	to plan

Problem 3

Use a half sheet of paper. Set your left margin at 20 for pica or 28 for elite. Leave six spaces between tabulations. Start on line 11 and double-space.

doubt	backward	random	zealous
yield	uncommon	employ	achieve
catch	latitude	volume	general
wrong	peculiar	temper	receive
noise	judgment	keeper	support

ACTIVITY 4 (Continued)

Project 3

INSTRUCTIONS: **Following the instructions given in the Unit Overview, type the following centering problems.**

Problem 1

Use a half sheet of paper. Center the following information vertically and horizontally, and double-space.

You are invited

to the

Business Office Services Open House

Friday evening

Problem 2

Use a half sheet of paper. Center the following information vertically and horizontally, and double-space.

I will be a people builder.

I will accomplish my goals.

I will succeed.

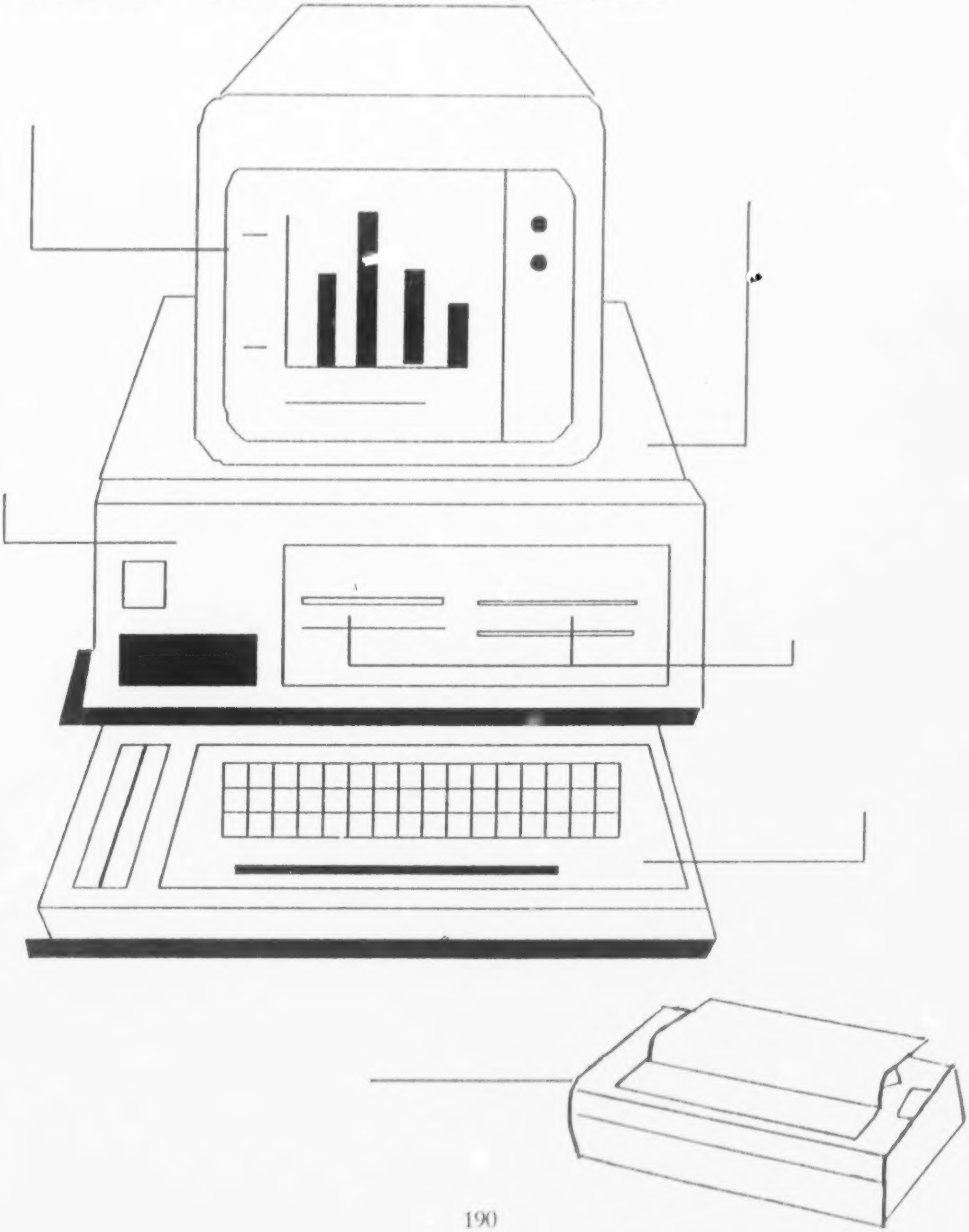
I will be a great leader.

I will be a people builder.

ACTIVITY 5: THE COMPUTER SYSTEM

Project 1

INSTRUCTIONS: **Label the parts of the computer system.**



ACTIVITY 5 (Continued)

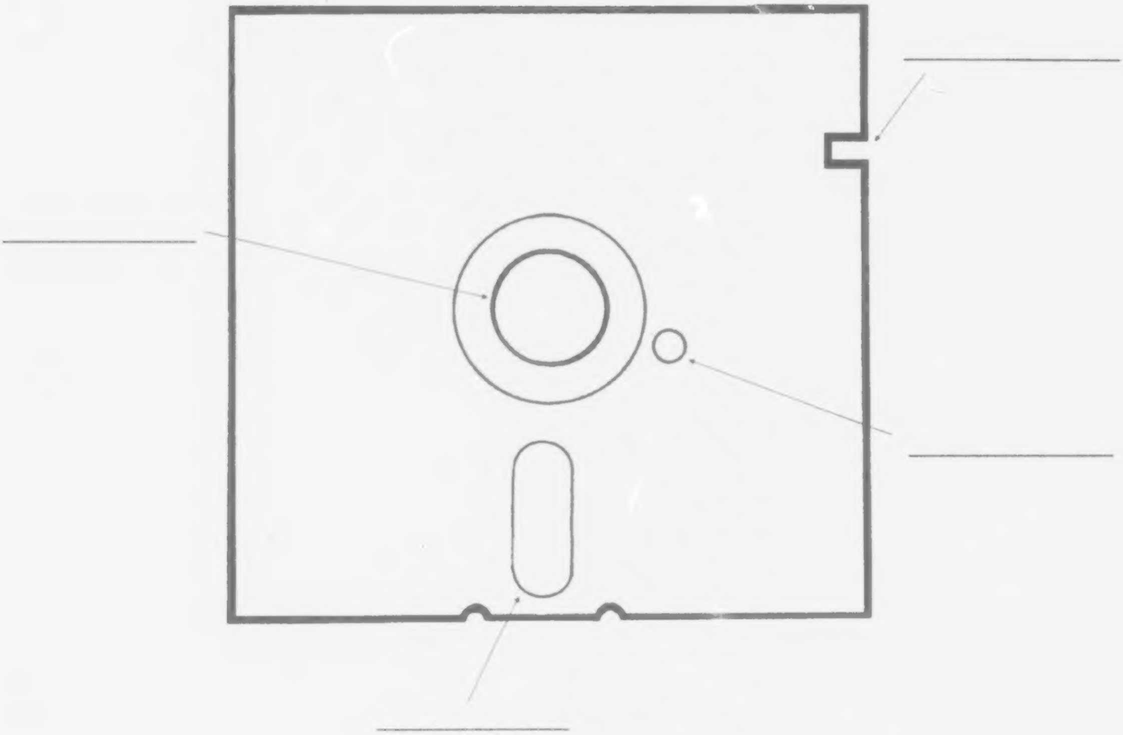
Project 2

INSTRUCTIONS: **Write a brief paragraph explaining how the function keys of a computer keyboard are used. Use at least two examples of function keys in your explanation.**

ACTIVITY 5 (Continued)

Project 3

INSTRUCTIONS: **Label the parts of the floppy disk.**



SECTION I: KEYBOARDING

UNIT II: PROOFREADING AND CORRECTING ERRORS

UNIT OBJECTIVE: Students will be able to recognize errors in written documents and will be able to use proofreading marks as a method of identifying or editing the documents.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Use terminology related to proofreading.
2. Identify the characteristics of a good proofreader.
3. Identify common types of errors.
4. Identify steps in proofreading.
5. Recognize and write proofreading/editing marks.
6. Demonstrate the ability to use common proofreading marks correctly.

FOCUS: Good proofreading skills are a high priority in achieving success in a business environment regardless of the position one has. Mistakes are costly. A good proofreader contributes to the productivity of business and thus enhances his/her own personal success.

TERMINOLOGY

Agreement	Personal pronouns must agree with their noun antecedents in number and gender, and subjects and verbs must agree in person and number.
Capitalization	Common rules for capitalizing certain words in a body of text.
Content	Written material referred to as text.
Document	Any data/information which has been keyed and printed.
Editing	The process of checking written material for accuracy and making corrections as necessary.
Final copy	Written material in its final form.
Format	The layout of text on a page according to a certain design, such as type, spacing, margins, punctuation, paragraph indention, and headings.
Grammar	Common rules relative to written material which assist in communication.
Homonyms	Words that sound alike but are spelled differently and have different meanings. For example, son and sun.
Mixed punctuation	Punctuation style used in business letters in which a colon is used after the salutation, and a comma is used after the complimentary close.
Omission	A letter, word, punctuation mark, etc., which has been left out.
Open punctuation	Punctuation style used in business letters in which there are no punctuation marks after the salutation and complimentary close.
Original	The final copy of text after all corrections have been made.
Proofreading	Reading over completed text in an effort to find errors that were overlooked.
Proofreading marks	Written symbols used to identify corrections that need to be made in text.
Punctuation	The practice of using common marks or signs in written material for clarification.
Rough draft	The first draft or copy of written material.

Run-on sentence	Two or more sentences joined without proper punctuation.
Transposition	Letters or words used out of sequence.

UNIT OVERVIEW

I. Defining proofreading and the characteristics of a good proofreader

  A. Proofreading is the process of carefully examining a completed document in an effort to detect all errors that keep the finished product from being entirely correct.

  B. Characteristics of a good proofreader

    1. Has a command of the English language.

      a. Good spelling skills.

      b. Knowledge of correct grammar.

    2. Uses appropriate reference materials and resources.

    3. Pays close attention to detail.

    4. Takes pride in producing accurate work.

    5. Understands proofreading/editing marks.

II. Types of errors

  A. Keyboarding errors

    1. Transposition--reversing order of letters

    2. Omission of letters, words, or lines

  B. English errors

    1. Spelling errors

      a. Check spelling of names and places.

      b. Use reference books to check spelling of **all** unfamiliar words, and words of which you are unsure.

    2. Confusing words--*affect* or *effect* and *ensure*, *insure*, or *assure*.

    3. Capitalization errors

    4. Punctuation errors

    5. Errors in forming plurals

6. Errors in forming possessives
7. Word-division errors
8. Grammar errors
    a. Errors in agreement of pronouns and/or subject and verb
    b. Incomplete or run-on sentences
    c. Using incorrect form of word

C. Formatting errors
1. Placement on page
2. Style
    a. Spacing
    b. Margins (uneven margins)
    c. Punctuation style

D. Appearance errors
1. Corrections are noticeable.
2. Smudges or fingerprints are evident.
3. Pages are creased or wrinkled.

E. Author's writing errors
1. Incorrect numbers, dates, and figures
2. Poor format
3. Poor grammar
4. Poor content

F. Content errors
1. Omission of a line
2. Information does not follow a logical order

        3. Errors in factual material

III. Steps in proofreading

    A. Read through the entire paper, checking for:

        1. Placement

            a. Attractive placement on the page

            b. Correct margins

        2. Format

            a. Correct order of necessary parts

            b. Logical order of information and clear presentation

            c. Only one subject addressed in each paragraph

        3. Content

            a. All necessary information has been included.

            b. Any letters, words, and phrases that could damage the meaning of the paper have been omitted .

            c. Double-check figures or facts that could affect the outcome of any action to be taken.

        4. Neatness of the document

            a. Neat corrections

            b. No smudges or fingerprints on pages

            c. Pages free of creases or wrinkles

    B. Check each line of the document for:

        1. Spelling

            a. Check spellings of names and places.

            b. Use a reference book to check all unfamiliar words and words the spelling of which you are unsure.

        2. Typographical content

            a. Check for transposed letters or words.

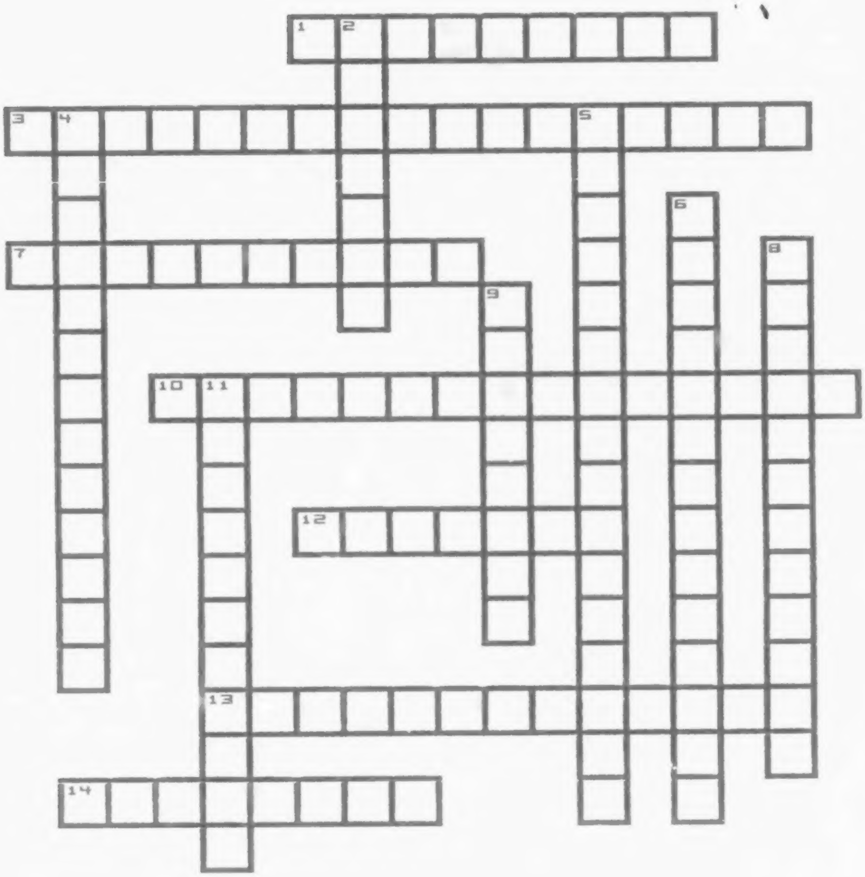
  - b. Watch for letters added or deleted from words and for spaces added or deleted between words.

3. Word division
   - a. Scan the right margin for words that have been divided, and check these items in a word-division manual.
   - b. Look for parts of words that might appear at the end of one line and repeated at the beginning of the next line.

4. Punctuation
   - a. Check to see that punctuation rules have been followed.
   - b. Use a reference manual or grammar book to double-check something that is questionable.

5. Grammar
   - a. Be sure that the subject and verb in a sentence are in agreement.
   - b. Check for incomplete and run-on sentences.
   - c. Make sure the correct form of a word has been used (i.e., to, too, two).

ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE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ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE CLUES

ACROSS CLUES

1. Personal pronouns must agree with their noun antecedents in number and gender, and subjects and verbs must agree in person and number.
3. Written symbols used to identify corrections that need to be made in text.
7. The first draft or copy of written material.
10. Punctuation style used in business letters in which there are no punctuation marks after the salutation and complimentary close.
12. Written material referred to as text.
13. Letters or words used out of sequence.
14. Words that sound alike but are spelled differently and have different meanings.

DOWN CLUES

2. Common rules for capitalizing certain words in a body of text.
4. Two or more sentences joined without proper punctuation.
5. Punctuation style used in business letters in which a colon is used after the salutation, and a comma is used after the complimentary close.
6. Common rules for capitalizing certain words in a body of text.
8. Reading over completed text in an effort to find errors that were overlooked.
9. Any data/information which has been keyed and printed.
11. The practice of using common marks or signs in written material for clarification.

ACTIVITY 2: CHARACTERISTICS OF A GOOD PROOFREADER

INSTRUCTIONS: **List the five characteristics of a good proofreader, and write a brief paragraph describing your strong points in one or more of these characteristics.**

1.

2.

3.

4.

5.

My strong point(s) as a proofreader is(are):

ACTIVITY 3: TYPES OF ERRORS

Project 1

INSTRUCTIONS: List the six major classifications of errors in alphabetical order.

1. AP
2. AW
3. C
4. E
5. F
6. K

Project 2

INSTRUCTIONS: Select the appropriate classifications from Project 1 of the following types of errors. Place the first letter(s) of the Project 1 answers in the space on the left of each error type.

TYPES OF ERRORS

_______ 1. Spelling
_______ 2. Spacing
_______ 3. Creases and wrinkles
_______ 4. Omission of letters and words
_______ 5. Attention line
_______ 6. Word division
_______ 7. Transposition
_______ 8. Omission of a line
_______ 9. Inconsistent indention
_______ 10. Noticeable corrections
_______ 11. Punctuation
_______ 12. Punctuation style
_______ 13. Smudges
_______ 14. Capitalization
_______ 15. Errors in pronoun agreement
_______ 16. Placement on the page
_______ 17. Frequently confused words
_______ 18. Inaccurate material
_______ 19. Incorrect numbers, dates, names, or details
_______ 20. Incorrect margins
_______ 21. Typographical errors
_______ 22. Content errors
_______ 23. Not in a logical order
_______ 24. Forming plurals
_______ 25. Headings

ACTIVITY 4: PROOFREADING NAMES/NUMBERS

Project 1

INSTRUCTIONS: **Check the names in the left column against the names in the right column. If the spelling is different, place a check in the blank provided.**

______	1.	James Byrd	James Bird
______	2.	Pauline Walls	Pauline Wallis
______	3.	Lamar Bridgman	Lamar Bridgeman
______	4.	Nancy Vaughn	Nancy Vaughn
______	5.	Jesus Montemayor	Jesus Montemayor
______	6.	Hicks McCormick	Hicks McCormack
______	7.	Konrad Wendell	Kanrod Wendell
______	8.	John McDaniel	John McDaniel
______	9.	Bobby Adair	Bobby Adiar
______	10.	Brad Lemons	Brad Lemons
______	11.	Dumas P. Lazaris	Dumas P. Lazariz
______	12.	Kasem Amatavanich	Kasem Amatavanick
______	13.	Frederick Lewis	Frederick Lewis
______	14.	Kenneth Sheppard	Kenneth Shepperd
______	15.	Conway Lowery	Conway Lowery
______	16.	Homer Gonzalez	Homer Gonzales
______	17.	Ronald Wolf	Ronald Wolfe
______	18.	German Campos	German Campus
______	19.	Somchai Mahapan	Somchai Mahapan
______	20.	Beulah Leary	Beulah Leary

ACTIVITY 4 (Continued)

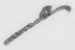
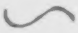
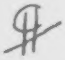
Project 2

INSTRUCTIONS: **Check the numbers in the left column against the numbers in the right column. If the numbers are different, place a check in the blank provided.**

__________	1.	8325-9096-36020	8325-9996-36020
__________	2.	4326-3222-96066	4326-3322-96066
__________	3.	5982-4430-88776	5982-4430-88776
__________	4.	3598-3000-46555	3598-3000-46555
__________	5.	6297-2269-56444	6297-2269-56444
__________	6.	7909-2263-97202	7909-2363-97202
__________	7.	7422-4762-60705	7422-4762-60705
__________	8.	9117-0044-66889	9117-0044-66889
__________	9.	8609-1102-79206	8609-1102-79026
__________	10.	6475-5907-34014	6475-5907-34014
__________	11.	9881-3699-75269	9818-3699-75269
__________	12.	1131-1148-75808	1131-1148-75808
__________	13.	5826-4982-88921	5862-4982-88921
__________	14.	9689-6690-84626	9689-6690-84626
__________	15.	2550-8203-58209	2550-8203-58209

ACTIVITY 5: PROOFREADER'S MARKS

INSTRUCTIONS: **Match the following proofreader's marks with their correct definitions.**

_____	1.	Insert	A.	
_____	2.	No paragraph	B.	^
_____	3.	Double-space	C.	
_____	4	Move to the left	D.	
_____	5.	Leave a space	E.	○
_____	6.	Spell out	F.	≡
_____	7.	Leave as is/do not delete	G.	#
_____	8.	Lower case	H.	ss[
_____	9.	Capitalize	I.	
_____	10.	Transpose	J.	⊏
_____	11.	Move to the right	K.	ds[
_____	12.	New paragraph	L.	.... stet
_____	13.	Single-space	M.	/
_____	14.	Delete	N.	⊐
_____	15.	Bring together	O.	¶

ACTIVITY 6: USING COMMON PROOFREADING MARKS

Project 1

INSTRUCTIONS: Compare the two letters. Place the appropriate proofreader's marks on the incorrect letter.

Correct Letter

402 Ash Street
Dallas, TX 75040-4329
December 1, 19--

Mr. Monroe Johnson, Personnel Director
General Office Services
Mayo, TX 65830-4369

Dear Mr. Johnson:

Mrs. Johanna Tuttle, office education teacher at Castle High School, has suggested that I apply for the position of file clerk in your organization. I believe you advised her that this position would be open around January 1.

On December 31, 19--, I shall graduate from Bay Castle High School. The enclosed data sheet indicates other subjects studied, in addition to training in filing, shorthand, typing, and adding and duplicating machines.

Since August, 19--, I have been employed as file clerk for First National Bank. This experience has given me a knowledge of various forms of filing and an appreciation of the need for accuracy.

Mrs. Janice Floyton, assistant vice-president of First National Bank, has given me permission to use her name as a reference. Mr. John Barton, principal of Bay Castle High, and Mrs. Tuttle have also given me permission to use their names for reference purposes.

May I have an interview at your convenience? You may reach me by calling my home, (214) 886-9898, or by writing to the above address.

Sincerely,

Jan Smith

xxx

Enclosure

ACTIVITY 6 (Continued)

Project 1 (Continued)

Incorrect Letter

402 Ash
Dallas, Texas 75040-4329
December 1, 19--

Dear Mr. Johnson

Mrs. Johanna Tuttle V.O.E. Coordinator at Bay Castle High School has suggested that I apply for the position of file clerk in you organization. I beleive you advised her that this position would be open around January 1.

On December 31 19-- I shall graduate from Bay Cast High School. In addition to training in filing, shorthand, and typing, adding and duplication machines. The inclosed data sheet indicated other subjects studied.

Since august 19-- I have been employed as file clerk for First National Bank. This experience has given me a knowledge of various froms of filing and an appreciation of the need for accuracy.

Mrs Janice Floyton, Assistant Vice President of First National bank has given my permission to use her name as a reference. Mr. John Barton, principal of Bay Castle High and Mrs. Tutle have also given me permission to use their names for reference purposes.

May I have an interview at you convenience? Your may reach me by calling my home, (214) 886-9898 or by writing to the above address.

Sincerely

Jan Smith

ACTIVITY 6 (Continued)

Project 2

INSTRUCTIONS: **Compare the two tables. Place the appropriate proofreader's marks on the incorrect problem.**

Correct Table

DEPARTMENT SALES YEARLY REPORT

Month	**Sporting Goods**	**Men's Clothing**	**Women's Clothing**	**Housewares**
January	$1,400	$1,286	$3,628	$2,249
February	1,528	1,022	2,998	1,987
March	2,328	1,145	2,845	2,269
April	2,146	1,333	2,733	2,229
May	2,028	1,548	2,645	2,529
June	2,014	1,623	2,828	2,478
July	1,928	1,349	3,009	2,016
August	1,762	1,028	3,010	2,849
September	2,113	1,169	3,000	2,002
October	2,018	1,345	3,245	2,987
November	1,749	1,323	3,555	3,025
December	3,665	2,489	4,445	3,444

ACTIVITY 6 (Continued)

Project 2 (Continued)

Incorrect Table

DEPARTMENT SALES YEARLY REPORT

Month	Sporting Goods	Men's Clothing	Womens Clothing	House ware
Jan.	$1,400	1,286	$3,628	$2,249
Febuary	1,582	1,022	2,998	1,987
March	2,328	1,145	2,845	2,269
april	2,146	1,333	2,733	2,229
May	2028	1,548	2,645	2,529
June	2,014	1,623	2,828	2,478
July	1,928	1,349	3,009	2,106
September	1,762	128	3,010	2,849
August	2,113	1,169	3,100	2,002
Oct.	2,018	3,145	3,254	2,987
November	1,749	1,323	3,555	3,025
December	3,665	2489	4,445	3,444

SECTION I: KEYBOARDING

UNIT III: WORD PROCESSING CONCEPTS

UNIT OBJECTIVE: Students will be able to demonstrate the skill of keyboarding letters, memorandums, tables and charts.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Identify placement of the parts of a business letter.
2. Identify types of letter styles and be able to prepare letters in these formats.
3. Know the difference between open and mixed punctuation.
4. Know the postal service regulations in preparing envelopes.
5. Identify parts and be able to properly format memorandums.
6. Identify the format of a table.
7. Demonstrate the ability to prepare:
    a. Mailable letters using different styles.
    b. Envelopes according to U.S. Postal Service regulations.
    c. Memorandums.
    d. Tables and charts.

FOCUS: Keyboarding has become one of the most common methods for information input. The individual who acquires the skills for inputting and formatting business documents should be able to enter and to successfully progress in the business environment.

UNIT OVERVIEW

I. Parts of a business letter

  A. Basic parts

    1. **Letterhead**--is a printed heading containing the name and address of the company.

    2. **Dateline**--tells the person receiving the letter when the letter was typed.

    3. **Inside address**--shows the name, title, and address of the person or company to whom the letter is written.

    4. **Salutation**--addresses the person or company.

      a. If possible, use the person's name.

      Example: Dear Ms. Brown: or Dear Melissa:

      b. If you do not know the person at a business, use:

      Dear Sir or Madam:

      c. When addressing a business, use:

      Ladies and Gentlemen:

    5. **Body of the letter**--tells the message.

    6. **Complimentary close**--closes the letter.

    Examples: Very truly yours,

    Sincerely,

    Yours very truly,

    Sincerely yours,

    7. **Signature line**--includes the name and title of the writer of the letter.

    8. **Reference line**--identifies the typist and writer of the letter.

      a. Typist only

      Examples: mlb sw TLP

b. Writer and typist

Examples: TLP:mlb SW:ml DH/KK

B. Special parts

1. Addressee notations

a. Shows how mail is to be handled when received.

Examples: PERSONAL CONFIDENTIAL
PLEASE HOLD PLEASE FORWARD

b. Placed before the inside address and followed by a double space.

c. Typed in all caps at the left margin.

d. Also included on the envelope.

2. Mailing notation

a. Used to show the purchase of special postal services and provides directions for sorting mail.

Examples: CERTIFIED MAIL
SPECIAL DELIVERY
REGISTERED MAIL

b. Placed a double space after the date and typed in all capital letters at the left margin.

c. Also included on the envelope.

3. Attention line

a. Used when a letter is addressed to a company but directed to a person or department.

b. Placed a double space below the inside address at the left margin.

NOTE: The attention line may be typed below the company name on both the envelope and the letter.

c. Typed in one of the following ways:

(1) In all capital letters: ATTENTION MRS. SMITH

(2) Underlined and in upper- and lower-case letters with or without a colon:

Attention Sales Department or
Attention: Accounting Department

4. Subject line

a. Used as a title to the body of the letter.

b. Typed a double space after the salutation at the left margin.

c. Typed in one of the following ways:

(1) In all capital letters: WORD PROCESSING

(2) In upper and lower case with a colon:

SUBJECT: Word Processing

NOTE: Ref. or Re. may be used instead of the word "Subject."

(3) Word processing

5. Enclosure notations

a. Used if materials are included with the letter.

b. Abbreviate the word enclosure (Enc.).

c. Typed a double space below the reference initials.

NOTE: Place a number after Enc. if there is more than one enclosure, i.e., Enc. 2.

6. Carbon copy or photocopy notations

a. Used to show other persons to whom copies of the letter have been sent.

b. Use the abbreviation either with or without a colon, and using either a capital or lower-case letter.

(1) cc: -- for a carbon copy

(2) pc: -- for a photocopy

c. Typed a double space below the reference initials or enclosure notations.

d. Type the name after the abbreviation of the person getting the copy.

Example: pc: Mark Collins

C. Letter placement

NOTE: To save time, many offices use standard spacing and margins for all letters.

1. Standard spacing

a. **Dateline**--typed a double space below the letterhead

b. **Inside address**--typed 4 to 12 lines between the date and inside address, depending on length.

c. **Salutation**--placed a double space below the inside address.

d. **Body of the letter**--begin a double space below the salutation; single-space the body of the letter, and double-space between paragraphs.

e. **Complimentary close**--typed a double space below the last line of the body of the letter.

f. **Signature line**--typed four lines below the complimentary close.

g. **Reference initials**--placed a double space below the reference initials at the left margin.

2. Standard margins

a. Side margins

(1) Use one inch for long letters.

(2) Use 1 1/2 inches for medium length letters.

(3) Use two inches for short letters.

b. Bottom margins--leave at least a one-inch bottom margin on all pages.

II. Letter styles

A. Block style

1. All lines begin at the left margin.

        2. Easy to set up.
        3. Saves time.
        4. This style is one of the more popular letter styles in business.

    B. Modified block style

        1. All lines begin at the left margin except:
            a. Dateline.
            b. Complimentary close.
            c. Signature line.
            d. First line of paragraphs.
        2. These lines are typed beginning at the center of the page.
        3. Paragraphs are indented five spaces.

    C. AMS simplified

        1. Sponsored by the Administrative Management Society.
        2. Format characteristics
            a. Full-block to left.
            b. Inside address begins on fourth space below the date.
            c. No salutation.
            d. Key in the subject line in all capital letters a triple space below the address.
            e. Begin the body of the letter a triple space below the subject line.

III. Punctuation

    A. Open punctuation

        1. No punctuation is used after the salutation and complimentary close.
        2. Requires less time to type.

B. Mixed punctuation

   1. Place a colon after the salutation and a coma after the complimentary close.

   2. Mixed punctuation is most commonly used.

IV. Addressing envelopes

   A. Postal service preference

      1. All words capitalized
      2. All punctuation omitted
      3. Typed within a certain area
      4. Two-letter state abbreviation
      5. ZIP + 4-digit extension ZIP Codes

   B. Location of address on the envelope

      1. Large envelopes (No. 10)
         a. Begin on line 14.
         b. Start the address seven spaces to the left of the center point.
      2. Small envelopes (No. 6)
         a. Begin on line 12.
         b. Start the address seven spaces to the left of center point.

   C. Parts of the address

      1. Place the name of the person receiving the letter on the top line.
      2. If there is an attention line, type it next.
      4. Type the name of the company below the attention line or first line.
      3. Type the street number and name or the route number and box number on the next to the last line of the address.
      5. Type the name of the city, the two-letter state abbreviation, and the ZIP Code on the last line of the address.

      NOTE: Leave two spaces between the state abbreviation and the ZIP Code.

D. Special notations

  1. Mailing notations

    a. Placed a triple space below the stamp position.

    b. Typed in all capital letters.

  2. **Addressee notations**--placed a triple space below the return address at the left.

E. Inserting pages into envelopes

  1. Large envelope (No. 10)

    a. Fold the bottom edge of the letter up one-third of the page.

    b. Fold the top of the letter down to about one-half inch from the bottom fold.

    c. Place the last crease in first.

  2. Small envelope (No.6)

    a. Fold the paper in half.

    b. Fold the right one-third over.

    c. Fold the left one-third over to about one-half inch.

    d. Insert the last crease first.

V. Interoffice memorandum

A. Description

  1. The interoffice memorandum (memo) is one of the most common styles of business reports prepared in an office.

  2. Used to send information within the company from one person or department to another.

  3. Many businesses are using memos to send information outside the business.

B. **Parts of a memorandum**--a memo may contain any or all of the following parts, depending on the style used in an office:

  1. **Dateline**--the current date.

  2. **Recipient**--the person or persons to receive the memo.

3. **Sender**--the person who prepared the memo.

4. **Subject line**--identifies the purpose of the memo.

5. **Body**--the message of the memo.

6. **Reference initials**--identifies the person who prepared the memo and the person who typed the memo. Some offices identify only the person who typed the memo.

7. **Enclose or attachment notation**--used if something is to accompany the memo.

8. **Carbon copy notation**--indicates who else is to receive a copy of the notation.

C. **Preparing a memo**--memos may be typed on preprinted forms, letterhead, or plain paper. Follow the suggestions below when typing a memo:

1. **Top margin**--on plain paper, leave a 1 1/2" top margin. On letterhead, begin 1" below the last line of the letterhead.

2. **Side margins**--on a preprinted form, set the left margin even with the left column guide words, and set the right margin equal in space to the left margin. On letterhead or plain paper, use a 60-space line.

3. **Guide words**--type the guide words at the left margin in all caps and double-space between the guide words. Set a tab ten spaces in from the left margin to align heading information that is typed after each guide word.

NOTE: To save time, the following guide words may be omitted: DATE, FROM, and SUBJECT. The heading information typed at the left margin.

4. **Body**--triple-space down from the last guide word to begin the body of the memo. Single-space the body of the memo and double-space between the paragraphs. Memos are usually typed in block style but may be typed with indented paragraphs.

5. **Reference initials**--initials are typed at the left margin a double space below the last paragraph. The initials of the person who prepared the memo are typed in all capital letters, and the initials of the typist are typed in lower case letters. A colon (:) or a diagonal line (/) separates the two sets of initials.

VI. Tables and charts

A. General table and chart information

1. Another form of a report.

2. May be typed either in the body of a report or on a separate page.

3. Used to emphasize information being presented in a style that is short and easy to follow.

B. Preparing a table

1. **Margins**--the entire table is centered vertically and horizontally on the page.

   NOTE: Refer to a typing book or reference manual for review on centering vertically and horizontally.

2. **Title**--center and type the title in all capital letters. Double-space between the main title and subtitle if there is one.

3. **Column headings**--triple-space down from the title to begin the column headings. Center the column headings horizontally. The headings are typed in capitals and lower-case letters and are underlined.

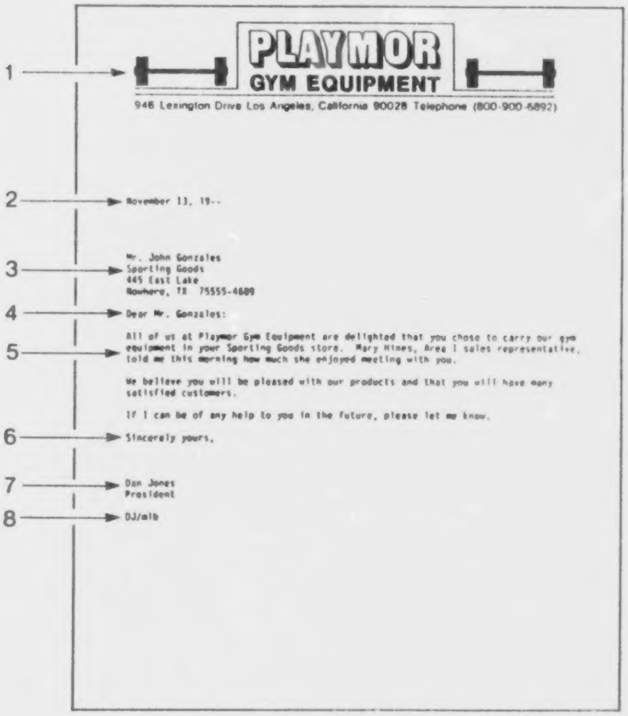
4. **Body of the table**--double-space down from the column heading to begin the columns. The body of the table may be single- or double-spaced, depending on the length of the table.

ACTIVITY 1: BASIC LETTER PARTS

Project 1

INSTRUCTIONS: Fill in the blanks with the correct letter parts.

1. ____________________
2. ____________________
3. ____________________
4. ____________________
5. ____________________
6. ____________________
7. ____________________
8. ____________________



PLAYMOR
GYM EQUIPMENT
946 Lexington Drive Los Angeles, California 90028 Telephone (800-900-6892)

November 13, 19--

Mr. John Gonzales
Sporting Goods
445 East Lake
Nowhere, TX 75555-4609

Dear Mr. Gonzales:

All of us at Playmor Gym Equipment are delighted that you chose to carry our gym equipment in your Sporting Goods store. Mary Hines, Area I sales representative, told me this morning how much she enjoyed meeting with you.

We believe you will be pleased with our products and that you will have many satisfied customers.

If I can be of any help to you in the future, please let me know.

Sincerely yours,

Dan Jones
President

DJ/mlb

ACTIVITY 1 (Continued)

Project 2

INSTRUCTIONS: **Identify the following letter parts by filling in the blank with the letter of the correct answer. Some letters may be used more than once.**

A. Letterhead
B. Dateline
C. Inside address
D. Salutation
E. Attention line
F. Body of the letter
G. Complimentary close
H. Signature line
I. Reference initials
J. Addressee notation
K. Mailing notation
L. Subject line
M. Enclosure notation
N. Carbon copy notation

_______ 1. January 18, 19--

_______ 2. Sincerely,

_______ 3. cc: Joe Smith

_______ 4. Dear Mrs. Adam:

_______ 5. Mr. John Cortez
Insurance Company
2428 Washington
Dallas , TX 75468-2963

_______ 6. Enc.

_______ 7. RE: PERMIT NO. 24569

_______ 8. Jack Mitchell
President

_______ 9. PLEASE HOLD

_______ 10. CERTIFIED MAIL

_______ 11. Ladies and Gentlemen

_______ 12. ilp

_______ 13. ATTENTION: ACCOUNTING DEPARTMENT

_______ 14. Thank you for . . .

_______ 15. PLEASE FORWARD

_______ 16. SPECIAL DELIVERY

_______ 17. Dear Sir or Madam:

_______ 18. Yours very truly,

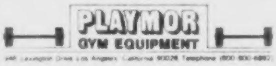
_______ 19. PERSONAL

_______ 20. SUBJECT: Word Processing

_______ 21. MN/fs

_______ 22. Sincerely yours,

_______ 23.



_______ 24. Dear Johnnie:

_______ 25. BMN:swj

ACTIVITY 1 (Continued)

Project 3

INSTRUCTIONS: Type the following letter parts in their correct places on the letterhead provided.

Sincerely,

Enclosure

January 18, 1985

cc: John Smith

ilp

Jack Mitchell, President

Ladies and Gentlemen:

Insurance Company, 2428 Washington, Dallas, TX 75468-2968

Certified Mail

Attention: Claims Department

Thank you for . . .

PLAYMOR
GYM EQUIPMENT
946 Lexington Drive Los Angeles, California 90028 Telephone (800-900-6892)

212

ACTIVITIES 2 & 3: LETTER STYLES AND PUNCTUATION

Project 1

BLOCK STYLE, OPEN PUNCTUATION LETTER

INSTRUCTIONS: Type the following letter using block style and open punctuation.

November 16, 19--

Ms. Joan Weaver
Gordon's Hotel
2629 N. Hamilton
Anywhere, TX 75548-2249

Dear Ms. Weaver

This is to confirm our telephone conversation of September 13, 19--. In this conversation, you agreed to host our annual sales conference on November 27-29.

We will need one large room to demonstrate our new line of sports equipment. We will also need ten small conference rooms to accommodate our guest speakers. The price you quoted me was $3,500. This included donuts, coffee, and orange juice for the morning sessions.

Please confirm this arrangement as soon as possible. Plans are underway for a successful conference.

Sincerely yours

Dan Jones
President

DJ/ki

PLAYMOR
GYM EQUIPMENT
946 Lexington Drive Los Angeles, California 90028 Telephone (800-900-6892)

ACTIVITIES 2 & 3 (Continued)

Project 2

MODIFIED BLOCK, MIXED PUNCTUATION LETTER

INSTRUCTIONS: **Type the following letter using modified block with mixed punctuation.**

November 17, 19--

Mr. Frank Sanchez
Health Spa
4528 N. Lamar
Anywhere, TX 75548-2249

Dear Mr. Sanchez:

Thank you for your interest in our weight benches. We carry four types of weight benches:

Huffy Fitness Center
Attractive chrome exercise bench
Five-position incline weight bench
Deluxe exercise bench

In considering your needs and use, I recommend that you purchase our Huffy Fitness Center. However, enclosed are literature and prices on all four types of weight benches.

If I can be of further help, please call me at (214) 886-2916.

Sincerely,

John Smith
Sales Consultant

JS/lp

Enc.

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GYM EQUIPMENT
946 Lexington Drive Los Angeles, California 90028 Telephone (800-900-6892)

ACTIVITIES 2 & 3 (Continued)

Project 3

AMS LETTER

INSTRUCTIONS: Type the following letter using modified block with indented paragraphs and mixed punctuation.

November 11, 19--

Ms. Sheila Grant
555 East Lancaster
Kilgore, TX 75555-4289

INFORMATION ON EXERCISE BICYCLES

Thank you for your interest in our exercise cycles. However, we are a wholesale supplier and are unable to sell to the home consumer.

In checking our records for a company handling our equipment nearest you, we find there are two companies:

Sports 'n Things
2528 N. Hibiscus
Kilgore, TX 75555-4263

J. M. Canel Sports Supplies
683 E. Lamar
Kilgore, TX 75555-4263

Either of these dealers will assist you in acquiring the best cycle for you.

If I can be of any further help, please contact me.

John Smith
Sales Consultant

JS/kk

PLAYMOR
GYM EQUIPMENT
946 Lexington Drive Los Angeles, California 90028 Telephone (800-900-6892)

ACTIVITIES 2 & 3 (Continued)

Project 4

INSTRUCTIONS: Type the following letters using the style of your choice.

Letter 1:

Date, J. M. Canel Sports Supplies, 683 E. Lamar, Kilgore, TX 75555-4263, Attention: Accounting Department, Ladies and Gentlemen, Recently you purchased 20 portable hip cycles from us on P.O. #2529. We have not received payment for this order. I know this is just an oversight, as in the past you have been very prompt with your payments. Should you have any problems paying for these, please call me at (214) 829-9999. Sincerely, Tom Walker, Accounts Receivable, xxx, cc: Harry Johnson

Letter 2:

Date, Fitzgerald Health Spa, 555 W. Lemon, Pharr, TX 78550-4428, Ladies and Gentlemen, SUBJECT: Annual Promotional Sales, As you know, our Annual Promotional Sale is under way. We are trying to make room in our warehouse for a large shipment of new gym equipment. I know you will want to take advantage of this sale. Enclosed is a brochure of our sale prices. Everything is on sale: exercise cycles, weight benches, tachometers, mats, hip cycles, weights, ankle/wrist weights, dumbbells, and many other items. Take advantage of these low prices today and place your order immediately. Sincerely, Dan Jones, President, xxx, Enc.

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ACTIVITY 4: ADDRESSING ENVELOPES AND FOLDING LETTERS

Project 1

INSTRUCTIONS: Type the following addresses on envelopes using proper U.S. Postal Service guidelines.

Mr. John Watworth
Watworth Gym
2529 E Watch
Houston TX 77259-2939

Ms. Melissa Brown
Sports 'n' Things
7829 Way Street
Houston, TX 76493-2939

Ms. Donna Hines
Jump Jack Jungle Gym
252 Lincoln
Spring, TX 77428-2333

Ms. Nelda Zamir
Weight Room
129 10th Street
Ben Bolt, TX 78251-4292

Mr. Jesus Gonzales
Athletic Supplies
249 Money Street
Mission, TX 77428-2444

CONFIDENTIAL
Mr. Robert Montemayor
Athletic Attic
666 Wash Street
Edcouch, TX 78428-7777

SPECIAL DELIVERY
Ms. Kathy Egle
Aerobic Center
928 Hibiscus
McAllen, TX 78529-4822

PERSONAL
Mr. Tim Gandy
Gym Equipment
529 2nd Street
Jacksboro, TX 76156-2898

PLEASE FORWARD
Mr. John Tallman
Tallman Gym
20 Washington Ave.
Garland, TX 75438-2469

CERTIFIED MAIL
Ms. Mary Mix
Aerobic Center
P.O. Box 135
Commerce, TX 75428-2429

ACTIVITY 4 (Continued)

Project 2

INSTRUCTIONS: Prepare envelopes provided by your teacher for the letters in Activity 3, Project 4. Fold and properly insert the letters in the envelopes.

ACTIVITY 6: PREPARING TABLES

INSTRUCTIONS: Key in the following tables using the proper format. Use a full sheet of paper for each table.

TABLE I

Type of Organization Responding

←5→ spaces (Name to Number); ←5→ spaces (Number to Percent)

Name	Number	Percent
Manufacturing	61	48
Marketing	15	12
Research	14	11
Service	12	9
Processing	4	3
Other	21	7
Totals	127	100%

Dbl Sp.

TABLE II

Departments Writing Reports

←8→ Spaces (Name to Number); 8 spaces ↓ (Number to Percent)

Name	Number	Percent
Research and Development	71	32
Marketing	30	14
Administration	25	11
Information Systems	21	10
Production	16	7
Personnel	15	7
Sales	15	7
All Departments	16	7
Other	11	5

ACTIVITY 5: PREPARING MEMORANDUMS

INSTRUCTIONS: **Type the following memorandums using the new format of omitting all guide words except for "TO." Use the current date on all memos and prepare on plain paper.**

Memo 1

To: Brooke Erving, Department Chairman From: Joan McArthur, Scheduling Coordinator, Subject: Room Reservations Current date. ¶ This will confirm our conversation of (today's date), regarding the use of room 244 in the Business Administration Building. ¶ We will have the appropriate equipment and supplies available on the date you requested. If you need any additional help, please let us know. xx

Memo 2

To: Carol Vardeman, From: John C. Patton Secretary, Subject: Special Board Meeting Date: January 26, 19--. ¶ There will be a called meeting of the Board of Directors on Wednesday, February 1, 19--, at 2 p.m. ¶ Attached are copies of the previous minutes, the lot description and appraisal report for your information. Enclosure xx

SECTION II

FILING

ESSENTIAL ELEMENTS

75.87(d)/(m)(2)(A)(B)

2. **Concepts and skills necessary for filing.**

The student shall be provided opportunities to:

- **(A) Demonstrate procedures used in alphabetic and numeric filing; and**
- **(B) Identify procedures used in electronic filing.**

SUGGESTED UNIT LESSON PLAN

SECTION II: FILING

UNIT I: ALPHABETIC AND NUMERIC FILING

ESSENTIAL ELEMENT: 75.87 (d)/(m)(2)(A)

ALLOCATED TIME: 20 Hours

UNIT OBJECTIVE: Students will be able to understand the concepts of and demonstrate the skills necessary for alphabetic and numeric filing.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

MODULE A: FILING BASICS

1. Identify basic filing terminology.
2. List four methods of filing.
3. List basic filing supplies.
4. Recognize types of filing equipment.
5. Define micrographics.

MODULE B: ALPHABETIC FILING

1. Identify terminology related to alphabetic filing.
2. List steps in filing correspondence.
3. Identify reasons for misfiling.
4. Apply filing rules to coding, indexing, and alphabetizing personal names.
5. Apply filing rules to coding, indexing, and alphabetizing business names.

MODULE C: NUMERIC FILING

1. Identify terminology related to numeric filing.
2. List characteristics of the numeric filing system.
3. Identify basic types of numeric filing systems.
4. Apply basic numeric filing rules.

FOCUS: Business records are a vital part of an organization. These records consist of information or data which must be stored. Once stored, the records must be easily accessible when needed. Several systems are used in business to store this information. Two of the common methods for storing information use the alphabetic and the numeric systems. The office worker needs to be familiar with the procedures for using these systems.

DOMAINS: Activity and competency tests have been designed to provide learning experiences utilizing the cognitive, psychomotor, or affective domains. Activities and competency tests are coded on the Activity and Competency Test Matrices.

BASIC SKILLS: Activities and competency tests have been designed to reinforce the basic skills of reading, writing, and/or mathematics. Activities and competency tests have been coded on the Activity and Competency Test Matrices.

CONTENT OUTLINE

MODULE A: FILING BASICS

I. Filing definition and methods
  A. Filing defined
  B. Filing methods
II. Filing supplies
  A. File drawer guides
  B. Primary guides
  C. File folders
  D. Folder labels
  E. Types of storage media
III. Filing equipment
  A. File cabinet size
  B. Types of file cabinets
IV. Micrographics
  A. Definition
  B. Types of microforms
  C. Retrieving and reading microforms

MODULE B: ALPHABETIC FILING

I. Steps for filing correspondence
  A. Inspecting for a release mark
  B. Indexing correspondence
  C. Coding correspondence

- D. Cross-referencing procedures
- E. Sorting

II. Misfiling
- A. Causes
- B. Preventing loss of records

III. Alphabetic filing
- A. Direct-access system
- B. Clearly defined rules
- C. Classification by name--straight alphabetic

MODULE C: NUMERIC FILING

I. Numeric filing systems
- A. Numeric filing
- B. Characteristics of a numeric filing system
- C. Indirect-access system

II. Basic types of numeric systems
- A. Straight numeric
- B. Terminal digit
- C. Middle digit
- D. Subject numeric
- E. Alphanumeric
- F. Phonetic
- G. Chronological

SUGGESTED TEACHER ACTIVITIES

General Teacher Preparation

1. Preview unit.
2. Review unit objectives.
3. Make instructional analysis.
4. Assess student learning needs.
5. Decide on lesson domain: cognitive, psychomotor, or affective domain.
6. Select instructional materials based on instructional analysis and student learning needs.
7. Select instructional strategies based on lesson content and student learning needs.
8. Prepare lesson plans from the unit lesson.
9. Prepare additional instructional material.
10. Reserve necessary media and equipment.

Teacher Presentation

1. Present student objectives.
2. Establish rapport with students.
3. Review lesson objectives with students.
4. Relate lesson to prior or future learning.
5. When appropriate, encourage student interaction through questioning, discussions, or some other strategy.
6. Emphasize the value/importance of the unit or activity.
7. Allow time for closure of a lesson.

Reteach Activities

1. Identify area(s) of weakness from results or evaluation.
2. Select unit activities not previously used.
3. Use additional resources and/or create materials based on student learning needs.
4. Use a different teaching strategy in reteaching.
5. Retest.

Specific Teaching Suggestions

1. Use rules based on the ARMA Simplified Filing Standard Rules. They are easy to teach and to learn.*
2. Present the rules using transparencies and/or chalkboard illustrations.
3. Discuss the reasons for each rule.
4. Illustrate the rules by using actual names from the class and the community to personalize the situation.
5. Use the local telephone directory as a source of both personal and business names.
6. Contact local businesses and vendors for illustrations of filing systems and equipment.
7. A practice set or a textbook that has a section on alphabetical filing and numeric filing should be used.
8. Remind the students that the business where they work may use other rules. However, consistency of use is the most important concept. It would be nice to convert an older arrangement to a new one; however, it may be too costly for some organizations to do immediately. Suggest to your students that instead of converting the older files, that they convert any new files to the new alphabetic filing rules. The rules that businesses use should actually be documented by the organization. This may be in the form of a list of alphabetic filing rules found in a handbook or records management book.
9. Prepare bulletin boards that relate to the information areas covered:
    (1) Filing supplies and equipment
    (2) Filing techniques
10. Make sure that the students are aware of the problems of misfiling.
11. Visit a company's file department. Have someone in charge of the operation explain the system used and any special procedures that they follow.
12. The terminology list is comprehensive. You may need to revise it to include only the terms which are more relative to your course.
13. You may wish to begin your filing unit by using the slide/tape "Introduction to Filing" that is available from the Educational Development and Training Center.
14. Be sure to check the *Resources* list in this section.
15. This unit does not include activities for cross-referencing or organizational and government names. However, secure a copy of the ARMA rules and make up additional student activities for these sections.

* On page 67 in the *1988-89 Competitive Events Guidelines for Business Professionals of America*, you will find "Rules for Alphabetic Filing," which has been extracted from the 1986 copyrighted publication *Alphabetic Filing Rules* and reprinted with permission of the Association of Records Managers & Administrators, Inc.

Additional Student Activities

1. Contact the school librarian to arrange a microfiche reader exhibit in your classroom (or visit the library), and demonstrate its use.
2. If it is not possible for you to visit a local business, invite a guest speaker to visit with your classes concerning procedures and supplies used for a records management program.
3. Have the students copy information on numeric filing in the same manner that you had them copy alphabetic filing rules.

Specific Activities and Test Instructions

MODULE B

Activity 4, Project 1 & Activity 5, Project 1

Use transparencies for each ARMA filing rule, and have students copy the rules with examples as you lecture. Use additional sheets as needed.

Activity 4, Project 7 & Activity 5, Project 7

It is important that students have an opportunity to use a facsimile of a file drawer to simulate file drawer filing from front to back. This will also give you an opportunity to use some local personal names and business names.

Activity 4, Project 8

1. Prepare an unalphabetized list of students from each of your classes. Include their name, address, telephone number, birthdate, and a six-digit number code. (These cards will later be used in a numeric filing activity and in an electronic filing activity.) Put the number code at the top of the card. You may also want to color-code the cards in order to keep the classes separate. You may choose to use all your students' names for each class, or use just the names for that particular class. Make sure there are enough copies for each student.
2. Distribute the 3" x 5" cards or 4" x 6" cards to the students.
3. Provide the students with alphabet guides and envelopes to keep up with their cards and supplies. Each student should put his/her name on the envelope. The guides may be simply cut from construction paper or card stock.

MODULE C

Activity 4, Project 4

When providing the students with the 3" x 5" cards for Module B, Activity 4, Project 8, be sure that you have included the six-digit number so the card can be used in this activity. You may wish to have the students file the numbers in this project in all three numeric systems: straight numeric, middle digit, and terminal digit.

ADDITIONAL TEACHER INFORMATION

The following material on cross-referencing procedures is not included in the student section but is for your information.

CROSS-REFERENCING PROCEDURES

1. Properly indexed and coded correspondence is filed under the caption by which it is most likely to be requested from the file; however, when a record may be requested by several names, appropriate cross references are compiled.

2. Make cross references sensibly

    a. Excessive cross-referencing takes too long and uses too much file space.

    b. Insufficient cross-referencing delays file recovery.

3. Situations which may require cross-referencing include:

    a. Names that are foreign or unusual.

    b. Names of women who are known by both their married and maiden names.

    c. Business names composed of two or more surnames.

    d. Businesses that use more than one trade name.

    e. Affiliates or branches of other firms.

    f. Firms and organizations that use well-known acronyms.

    g. Business names that have been changed.

    h. Correspondence pertaining to individuals but filed by subject.

    i. Foreign language names of businesses and government agencies.

    j. Worker uncertainly about how a file should be coded.

4. Methods of cross-referencing

    a. Cross-reference sheets

        (1) Contain information about where to find a specific record.

        (2) Are placed in the files and describe where the original record is filed.

(3) Include information such as file name, file location, date, and a brief description of the subject of the record.

(4) Should be filed in each location where a document might be sought.

b. Some companies choose to make facsimiles of original documents.

(1) This is more expensive.

(2) In the long run, facsimiles save time, because only one place needs to be checked to secure the document.

c. Permanent cross-reference guides may be used.

(1) These guides are made of manila card stock, are the same size as file folders, and have identical tabs.

(2) They are inserted in place of a folder.

d. A card file also utilizes cross references to save time looking up information.

e. Cross-referencing for numeric and subject filing is done automatically with their accompanying indexes.

MONSTERVILLE TELEPHONE DIRECTORY

Project 1

INSTRUCTIONS: This activity should give you a laugh. Alphabetize the names below.

Creaks, Creepy 1. ______________________________
Droolington, Brute 2. ______________________________
Dracula, Bat 3. ______________________________
Ghoul, Ghoulie 4. ______________________________
Hauntsman, Scary 5. ______________________________
Moaner, Scara 6. ______________________________
Troll, Fiercy 7. ______________________________
Witch, Haggy 8. ______________________________
Witch, Hexy 9. ______________________________
Witch, Howla 10. ______________________________

Project 2

If Scara Moaner married Bat Dracula and they had four children--Cape Dracula, Transyl Dracula, Bram Dracula, and Scara Dracula (named for her mother)--who grew up and left home, there would probably be five Dracula listings in the phone directory. List the Dracula family in alphabetical order.

____

____

____

____

____

____

ACTIVITY MATRIX

Activities	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
Module A						
1 Project 1	X			X		
Project 2	X			X		
2	X			X		
3	X				X	
4	X	X		X		
5	X			X		
Module B						
1	X			X		
2	X				X	
3	X				X	
4 Project 1	X				X	
Project 2	X				X	
Project 3	X				X	
Project 4	X				X	
Project 5	X				X	
Project 6	X				X	
Project 7	X				X	
Project 8	X	X			X	
5 Project 1	X				X	
Project 2	X				X	
Project 3	X				X	
Project 4	X				X	
Project 5	X				X	

ACTIVITY MATRIX

Activities	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
Project 6	X				X	
Project 7	X				X	
Module C						
1	X			X		
2	X				X	
3	X				X	
4 Project 1	X					X
Project 2	X					X
Project 3	X					X
Project 4	X	X				X

COMPETENCY TEST MATRIX

Parts	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
Module A						
I	X			X		
II	X				X	
Module B						
I	X			X		
II	X			X		
III	X				X	
Module C						
I	X			X		
II	X				X	
III	X				X	
IV	X			X		X

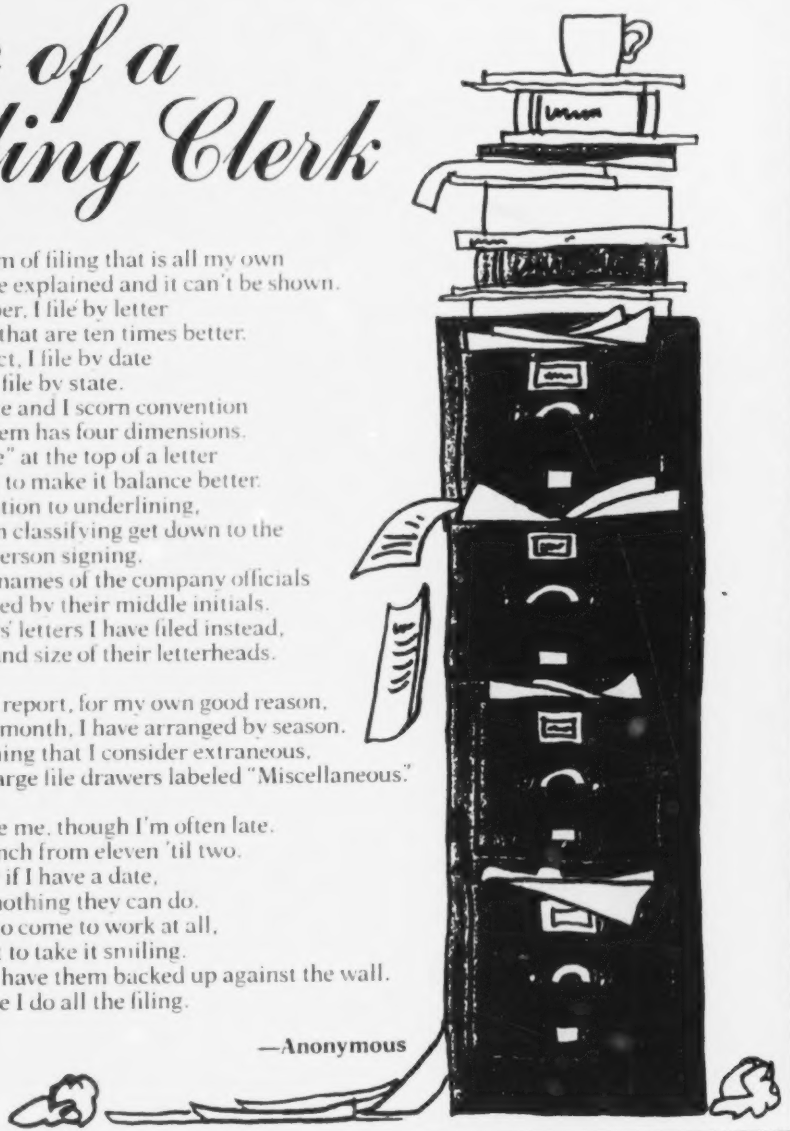
Ode of a Filing Clerk

I have a system of filing that is all my own
And it can't be explained and it can't be shown.
I file by number, I file by letter
I file by ways that are ten times better.
I file by subject, I file by date
I file by city, I file by state.
I shun the trite and I scorn convention
My filing system has four dimensions.
I regard "In re" at the top of a letter
As something to make it balance better.
I pay no attention to underlining,
And seldom in classifying get down to the
name of the person signing.
I have all the names of the company officials
neatly arranged by their middle initials.
But customers' letters I have filed instead,
By the color and size of their letterheads.

Our financial report, for my own good reason,
Instead of by month, I have arranged by season.
And for anything that I consider extraneous,
I have three large file drawers labeled "Miscellaneous."

They can't fire me, though I'm often late.
And I have lunch from eleven 'til two.
I leave at four if I have a date,
And there is nothing they can do.
Or if I forget to come to work at all,
They have got to take it smiling.
For you see, I have them backed up against the wall.
Why? Because I do all the filing.

—**Anonymous**



BUSINESS EXCHANGE, **November 1983**

CROSS-REFERENCING MARRIED WOMEN'S NAMES

Smith, Kay Lee Mrs. I

Mrs. Robert Smith
526 Lanewood Drive
Oakland, CA 94601

ORIGINAL CARD

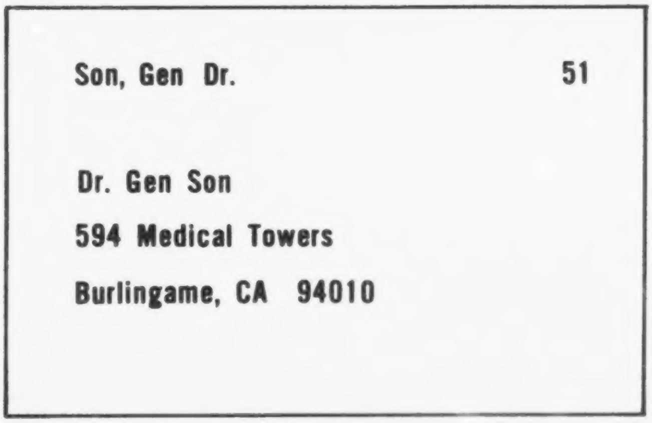
Smith, Robert Mrs. Ix

526 Lanewood Drive
Oakland, CA 94601

SEE
Smith, Kay Lee Mrs.

CROSS-REFERENCE CARD

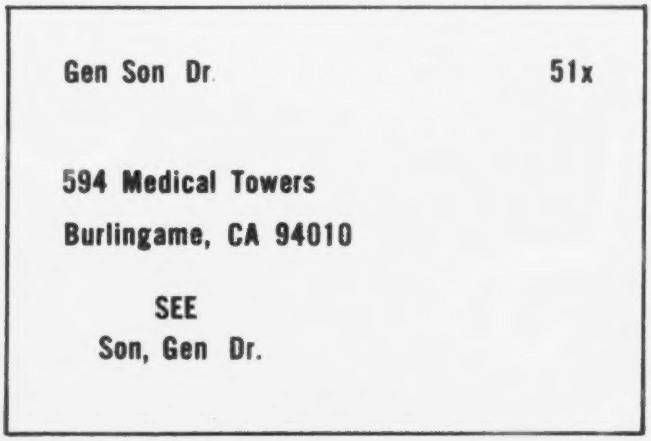
CROSS-REFERENCING UNUSUAL NAMES



Son, Gen Dr. 51

Dr. Gen Son
594 Medical Towers
Burlingame, CA 94010

ORIGINAL CARD



Gen Son Dr. 51x

594 Medical Towers
Burlingame, CA 94010

SEE
Son, Gen Dr.

CROSS-REFERENCE CARD

TM-2

COMPETENCY TEST

MODULE A: BASIC FILING

PART I: FILING SUPPLIES, EQUIPMENT, AND TERMINOLOGY

STRUCTIONS: Match the term with its definition.

A. Alphabetizing
B. ARMA
C. Caption
D. Coding
E. Correspondence
F. Cross-referencing
G. Filing
H. Folder
I. Geographic filing
J. Guides
K. Indexing
L. Key unit
M. Label
N. Microfiche
O. Retrieval
P. Score marks
Q. Subject filing
R. Tab
S. Surname
T. Middle-digit filing
U. Given name
V. Straight numeric
W. Terminal-digit filing
X. Unit
Y. Sort

___ 1. Written communication between a company and other businesses.

___ 2. The systematic process of classifying, arranging, and storing information so that it can be easily located.

___ 3. Gummed paper that is attached to the tab of a folder.

___ 4. A field or category within a record that is used to identify, select, or sort records.

___ 5. A person's last name or family name.

___ 6. Sheets of film that can store the reduced images of many pages of documents.

___ 7. Marking units in a filing segment.

___ 8. Messages that refer the user to another location for the desired file.

___ 9. The container in which papers or materials are kept in a file drawer.

___ 10. A person's name given to him at birth, i.e., first name, middle name.

___ 11. Arranging records according to a predetermined sequence.

___ 12. Filing correspondence alphabetically by subject.

___ 13. Putting names in order according to the letters of the alphabet.

PART I (Continued)

_____14. The written, typed, or printed heading on tabs or guides.

_____15. The segment of a folder or guide that extends above the folder's edge an which holds the caption or title.

_____16. The process of reversing the order of a personal name so that the last nam becomes the LCD unit, the first name becomes the second unit, etc. I business names, the names are indexed as written.

_____17. A numeric filing system using the middle digits to classify records.

_____18. An indented or raised line on the fold of a file folder.

_____19. Filing records by geographic location.

_____20. Locating records which are stored in the files.

_____21. A filing system using the final number (or terminal digit) to classify records fo filing.

_____22. A segment of a name used in determining the alphabetic order in a filin system.

_____23. A filing system that uses an ordered sequence of numerals: 1, 2, 3, etc.

_____24. Association of Record Managers and Administrators, Inc.

_____25. Stiff pieces of cardboard or other material that divide a file drawer int sections.

PART II: MICROGRAPHICS

INSTRUCTIONS: **In your own words, define micrographics, then list and describe two types of microforms.**

COMPETENCY TEST

MODULE B: ALPHABETIC FILING

PART I: TERMINOLOGY

INSTRUCTIONS: **Fill in the blank with the proper term.**

______________ 1. The written, typed, or printed heading on tabs or guides.

______________ 2. Arranging records according to a predetermined sequence.

______________ 3. A field or category within a record that is used to identify, select, or sort records.

______________ 4. Filing the most current correspondence on top of the filed stack.

______________ 5. A segment of a name used in determining the alphabetic order in a filing system.

______________ 6. Messages that refer the user to another location for the desired file.

______________ 7. Data items which may contain digits, letters, or special characters.

______________ 8. Marking units in a filing segment.

______________ 9. An indented or raised line on the fold of a file folder.

______________ 10. A person's last name or family name.

______________ 11. Association of Record Managers and Administrators, Inc.

______________ 12. Computer ouput is reduced and printed onto a microform by a special device.

______________ 13. All correspondence that originates within an office.

______________ 14. This designation consists of the woman's first name, her middle or maiden name, and her husband's surname.

______________ 15. Putting names in order according to the letters of the alphabet.

PART I (Continued)

____________ 16. Written communication.

____________ 17. Organizing (or filing) records in a file according to the alphabet, subject, date, or number.

____________ 18. The linking of computers and micrographics equipment for automatic retrieval of data from microforms.

____________ 19. Arranged in sequence from highest to lowest, or alphabetically from Z to A.

____________ 20. Data is arranged in order from lowest to highest, or alphabetically from A to Z.

PART II: STEPS IN FILING CORRESPONDENCE

INSTRUCTIONS: **Place in order the following steps for filing correspondence.**

_______ 1. Indexing correspondence

_______ 2. Cross-referencing procedures

_______ 3. Sorting

_______ 4. Inspecting for a release mark

_______ 5. Coding correspondence

PART III: REASONS FOR MISFILING

INSTRUCTIONS: **List three reasons why misfiling occurs.**

1.

2.

3.

PART IV: PERSONAL NAMES

Project 1

INSTRUCTIONS: Code the following names, and put them in indexing order.

		Index Order			
		1st	2nd	3rd	4th
1.	Rev. Baker Porter-James				
2.	Mrs. Annamae Johnson				
3.	Sister Anne				
4.	Robert March, Jr.				
5.	Robert March, II				
6.	Robert March, Sr.				
7.	Robert March				
8.	Philip McDonald				
9.	Helena DeGarza				
10.	Betty M. Simmons				
11.	Betty Simmons				
12.	Dr. James L. Sullivan				

PART IV (Continued)

Project 2

INSTRUCTIONS: **Place the indexed names in Project 1 in alphabetic order.**

1. ____

2. ____

3. ____

4. ____

5. ____

6. ____

7. ____

8. ____

9. ____

10. ____

11. ____

12. ____

PART V: ALPHABETIZING BUSINESS NAMES

Project 1

INSTRUCTIONS: Code the following names and put them in indexing order.

		Index Order			
		1st	**2nd**	**3rd**	**4th**
1.	The $ Store				
2.	Tru-Value Hardware				
3.	Trudy's Hair Salon				
4.	Mesa Airlines				
5.	Park Cities Cleaners				
6.	Baker & Baker, Inc.				
7.	Mexicana Airlines				
8.	Globe Trotter Travel Agency				
9.	Northwest Enterprises				
10.	North West Travel Agency				
11.	Fourth Avenue Dry Cleaners				
12.	James K. Wilson's				

PART V (Continued)

Project 2

INSTRUCTIONS: Place the indexed names in Project 1 in alphabetic order.

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________
6. ______________________________
7. ______________________________
8. ______________________________
9. ______________________________
10. ______________________________
11. ______________________________
12. ______________________________

COMPETENCY TEST

MODULE C: NUMERIC FILING

PART I: TERMINOLOGY

INSTRUCTIONS: **Fill in the blank with the proper term.**

______________ 1. A filing system using precisely designated numbers to classify records into groups.

______________ 2. A filing system that uses an ordered sequence of numerals: 1, 2, 3, etc.

______________ 3. Arranging records according to a predetermined sequence.

______________ 4. A file organized by the day of the month to serve as a daily memorandum of tasks.

______________ 5. Data items which may contain digits, letters, or special characters.

______________ 6. The orderly movement of records from the active records file to the inactive or other files.

______________ 7. A filing system using the middle digits to classify records.

______________ 8. Filing by number rather than filing alphabetically.

______________ 9. A filing system in which the user must refer to an index.

______________ 10. Organizing (or filing) records in a file according to the alphabet, subject, date, or number.

PART II: CHARACTERISTICS OF A NUMERIC FILING SYSTEM

INSTRUCTIONS: **List the characteristics of a numeric filing system.**

1.

2.

3.

4.

5.

PART III: BASIC TYPES OF NUMERIC SYSTEMS

INSTRUCTIONS: **In you own words identify and explain at least three (3) types of numeric filing systems.**

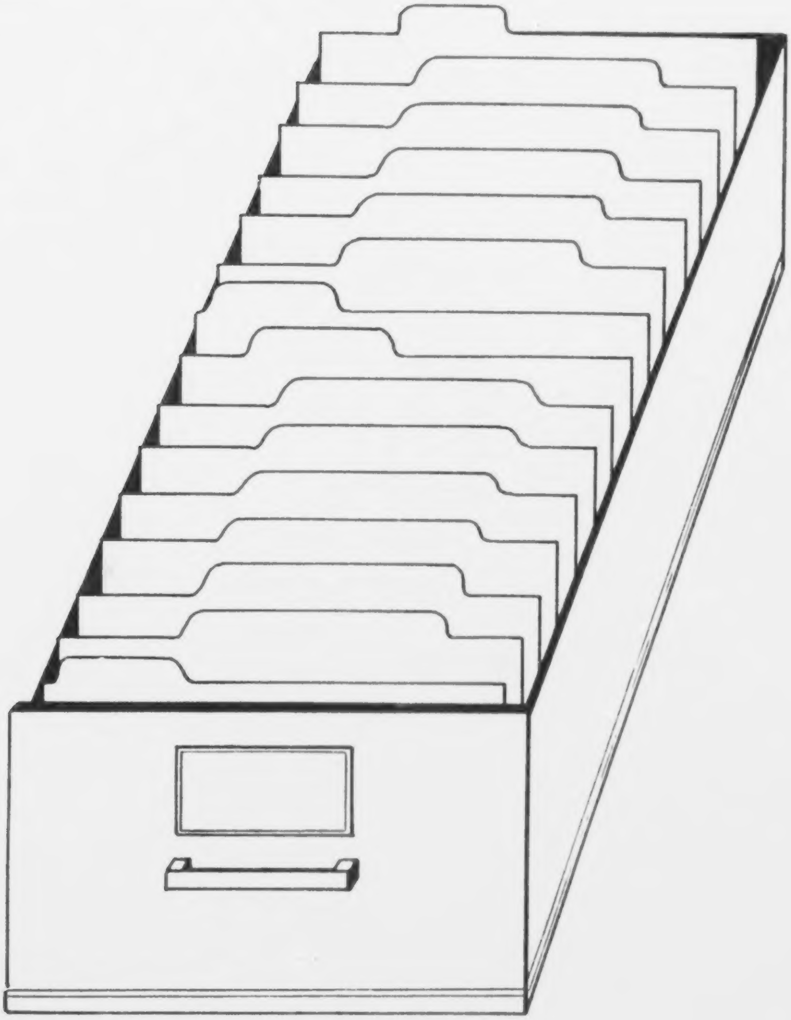
PART IV: NUMERIC FILING

INSTRUCTIONS: **There are twelve sets of numbers below. File them first using the straight-numeric method, then file them using the middle-digit system, and finally, file them in the terminal-digit system. Use the next three pages with file drawers to indicate your answers.**

1. 214271
2. 214674
3. 214065
4. 193550
5. 202546
6. 193978
7. 205156
8. 208898
9. 197685
10. 216681
11. 197135
12. 205633

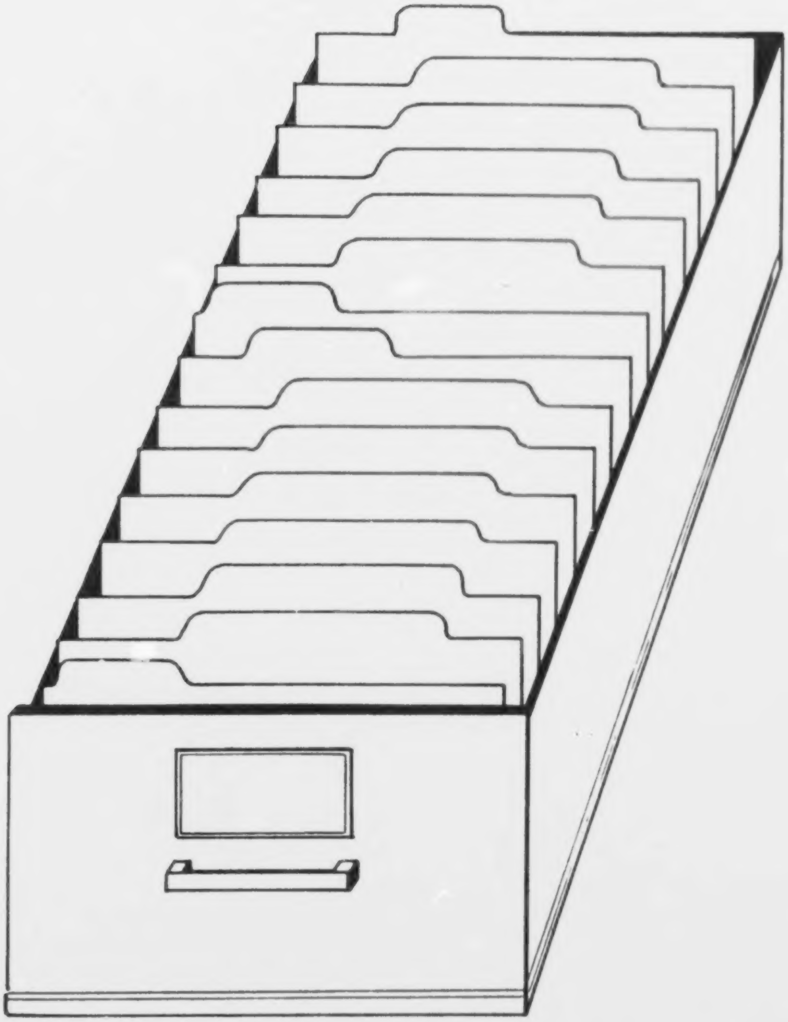
PART IV (Continued)

STRAIGHT NUMERIC



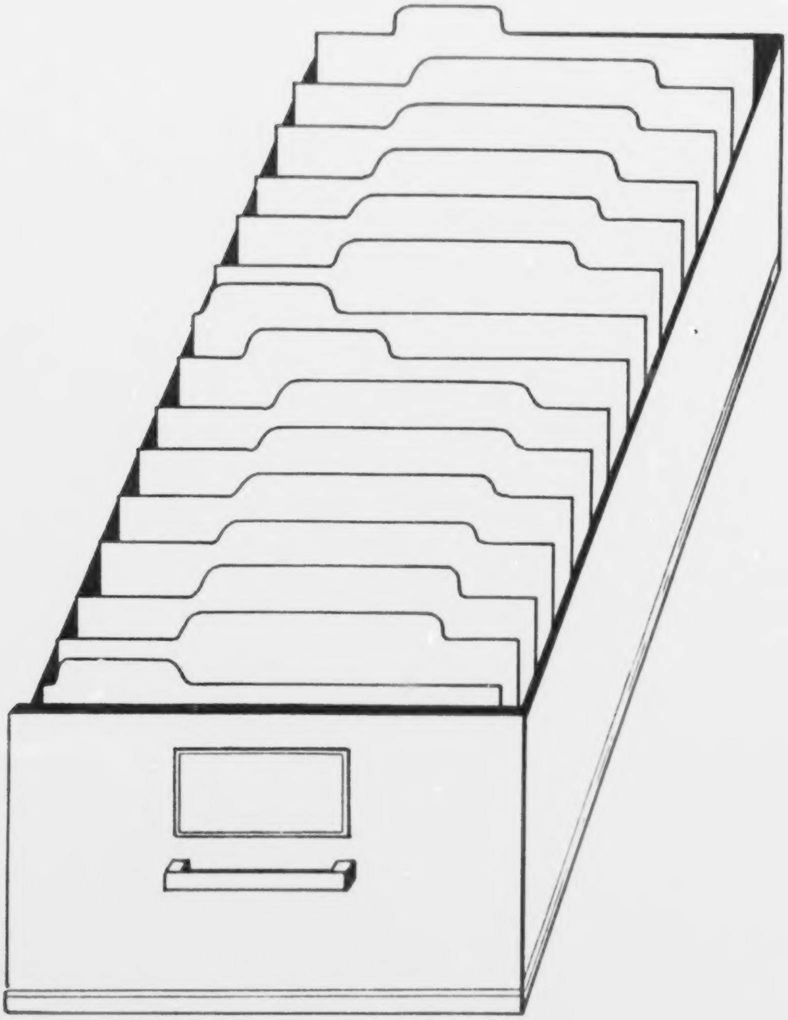
PART IV (Continued)

MIDDLE DIGIT



PART IV (Continued)

TERMINAL DIGIT



ANSWERS TO ACTIVITIES

MODULE A: FILING BASICS

Activity 1

Project 1

1. E
2. O
3. A
4. I
5. C
6. P
7. J
8. F
9. M
10. D
11. N
12. B
13. H
14. K
15. G
16. L

Project 2

1. M
2. H
3. A
4. P
5. F
6. I
7. O
8. C
9. B
10. J
11. E
12. K
13. G
14. N
15. D
16. L

Activity 2

1. S
2. A
3. G
4. A
5. N

Activity 3 Evaluated to the satisfaction of the instructor.

Activity 4 Evaluated to the satisfaction of the teacher.

Activity 5

1. F
2. T
3. F
4. T
5. F
6. F
7. T
8. F
9. T
10. F

MODULE B: ALPHABETIC FILING

Activity 1

1. G
2. U
3. E
4. C
5. P
6. A
7. R
8. L
9. S
10. J
11. Y
12. N
13. W
14. M
15. T
16. AA
17. O
18. D
19. X
20. F
21. Z
22. B
23. V
24. H
25. K
26. Q
27. I

Activity 2 Descriptions evaluated to the satisfaction of the instructor.

1. Inspect for release mark
2. Index correspondence
3. Code correspondence
4. Cross-reference
5. Sort

Activity 3 Evaluated to the satisfaction of the instructor.

Activity 4

Project 1 Evaluated to the satisfaction of the instructor.

Project 2

		1st	2nd	3rd
0.	J./R./Aaron	Aaron	J.	R.
1.	D./B./Abbett	Abbett	D.	B.
2.	Sidney/Ballou	Ballou	Sidney	
3.	Tom/Flaherty	Flaherty	Tom	
4.	D./A./Flanagan	Flanagan	D.	A.
5.	Nancy/Abbott	Abbott	Nancy	
6.	C./B./Grant	Grant	C.	B.
7.	Janice/Woodward	Woodward	Janice	
8.	Philip/Mayer	Mayer	Philip	
9.	Cecil/Grant	Grant	Cecil	
10.	Joanne/Garner	Garner	Joanne	
11.	Carolyn/H./Johnson	Johnson	Carolyn	H.
12.	B./O./Proffitt	Proffitt	B.	O.
13.	F./Procelle	Procelle	F.	
14.	Kellee/Rayburn	Rayburn	Kellee	
15.	Keller/Rayburn	Rayburn	Keller	

Project 3

1. Abbett, D. B.
2. Abbott, Nancy
3. Ballou, Sidney
4. Flaherty, Tom
5. Flanagan, D. A.
6. Garner, Joanne
7. Grant, C. B.
8. Grant, Cecil
9. Johnson, Carolyn H.
10. Mayer, Philip
11. Procelle, F.
12. Proffitt, B. L.
13. Rayburn, Kellee
14. Rayburn, Keller
15. Woodward, Janice

Project 4

		1st	2nd	3rd	4th
1.	Janice/La Corte	La Corte	Janice		
2.	John/B./Garrett,/II	Garrett	John	B.	II
3.	Mary/Fitz-Gibbons	FitzGibbons	Mary		
4.	Prince/John	Prince	John		
5.	Min/Kwang/Shik	Shik	Min	Kwang	
6.	Marie/Garcia-Romero	GarciaRomero	Marie		
7.	John/B./Garrett,/III	Garrett	John	B.	III
8.	Nancy/Da Silva,/M.D.	DaSilva	Nancy	M.D.	
9.	Mrs./Patricia/Macy	Macy	Patricia	Mrs.	
10.	Alfred/Garcia,/Sr.	Garcia	Alfred	Sr.	
11.	Dr./John/James	James	John	Dr.	
12.	Father/James	Father	James		
13.	Michael/Delacy	Delacy	Michael		
14.	Alex/D'Agostino	D'Agostino	Alex		
15.	Thomas/F./ DaGroomes	DaGroomes	Thomas	F.	

Project 5

1. D'Agostino, Alex
2. DaGroomes, Thomas F.
3. DaSilva, Nancy, M.D.
4. Delacy, Michael
5. Father James
6. Fitz-Gibbons, Mary
7. Garcia, Alfred, Sr.
8. Garcia-Romero, Marie
9. Garrett, John B., II
10. Garrett, John B., III
11. James, John, Dr.
12. La Corte, Janice
13. Macy, Patricia, Mrs.
14. Prince John
15. Shik, Min Kwang

Project 6

1. Abbett, D. B.
2. Abbott, Nancy
3. Ballou, Sidney
4. D'Agostino, Alex
5. DaGroomes, Thomas F.
6. DaSilva, Nancy, M.D.
7. Delacy, Michael
8. Father James
9. Fitz-Gibbons, Mary
10. Flaherty, Tom
11. Flanagan, D. A.
12. Garcia, Alfred, Sr.
13. Garcia-Romero, Marie
14. Garner, Joanne
15. Garrett, John B., II
16. Garrett, John B., III
17. Grant, C. B.
18. Grant, Cecil
19. James, John, Dr.
20. Johnson, Carolyn H.
21. La Corte, Janice
22. Macy, Patricia Mrs.
23. Mayer, Philip
24. Prince John
25. Procelle, F.
26. Proffitt, B. O.
27. Rayburn, Kellee
28. Rayburn, Keller
29. Shik, Min Kwang
30. Woodward, Janice

Project 7 Evaluated to the satisfaction of the instructor.

Project 8 Evaluated to the satisfaction of the instructor.

Activity 5

Project 1 Evaluated to the satisfaction of the instructor.

Project 2

		1st	2nd	3rd	4th
1.	Morgan/School/Day/Care	Morgan	School	Day	Care
2.	Aaron's/Locksmiths	Aaron's	Locksmiths		
3.	Fuller-Sheffield/Hardware	Fuller-Sheffield	Hardware		
4.	San/Francisco/Steak/House	San	Francisco	Steak	House
5.	Wilson/Savings/and/Loan	Wilson	Savings	and	Loan
6.	D/&/P/Locksmiths	D	and	P	Locksmiths
7.	The/Fourth/Avenue/Deli	Fourth	Avenue	Deli	The
8.	Al's/Formal/Wear	Al's	Formal	Wear	
9.	Mt. Vernon/Mobile/Homes	Mt. Vernon	Mobile	Homes	
10.	Bryan/World/Travel	Bryan	World	Travel	
11.	Kwik-Stop/Kar/Wash	Kwik-Stop	Kar	Wash	
12.	San Antonio/Tours/Inc.	San Antonio	Tours	Inc.	

Project 3

1. Aaron's Locksmiths
2. Al's Formal Wear
3. Bryan World Travel
4. D and P Locksmiths
5. Fourth Avenue Deli The
6. Fuller-Sheffield Hardware
7. Kwik-Stop Kar Wash
8. Morgan School Day Care
9. Mt. Vernon Mobile Homes
10. San Antonio Tours, Inc.
11. San Francisco Steak House
12. Wilson Savings and Loan

Project 4

		1st	2nd	3rd	4th
1.	Tress/Tique/Beauty/Salon	Tress	Tique	Beauty	Salon
2.	Art/Mason/Auto/Parts	Art	Mason	Auto	Parts
3.	Freshe/Industries,/Inc.	Freshe	Industries	Inc.	
4.	Great/American/Real/Estate	Great	American	Real	Estate
5.	Harv's/Repair/Shop	Harv's	Repair	Shop	
6.	Beggs/&/Woodruff	Beggs	and	Woodruff	
7.	Campana/&/Associates	Campana	and	Associates	
8.	A/&/G/Motors	A	and	G	Motors
9.	Paul/Harobec/Auto/Sales	Paul	Harobec	Auto	Sales
10.	Larry/Lange/Jaguar	Larry	Lange	Jaguar	

Project 5

1. A and G Motors
2. Art Mason Auto Parts
3. Beggs and Woodruff
4. Campana and Associates
5. Freshe Industries, Inc.
6. Great American Real Estate
7. Harv's Repair Shop
8. Larry Lange Jaguar
9. Paul Harobec Auto Sales
10. Tress Tique Beauty Salon

Project 6

1. A and G Motors
2. Aaron's Locksmiths
3. Al's Formal Wear
4. Art Mason Auto Parts
5. Beggs and Woodruff
6. Bryan World Travel
7. Campana and Associates
8. D and P Locksmiths
9. Freshe Industries, Inc.
10. Fourth Avenue Deli The
11. Fuller-Sheffield Hardware
12. Great American Real Estate
13. Harv's Repair Shop
14. Kwik-Stop Kar Wash
15. Larry Lange Jaguar
16. Morgan School Day Care
17. Mt. Vernon Mobile Homes
18. Paul Harobec Auto Sales
19. San Antonio Tours, Inc.
20. San Francisco Steak House
21. Tress Tique Beauty Salon
22. Wilson Savings and Loan

Project 7 Evaluated to the satisfaction of the instructor.

MODULE C: NUMERIC FILING

Activity 1

1. C
2. K
3. N
4. A
5. G
6. M
7. L
8. I
9. B
10. F
11. J
12. E
13. H
14. D

Activity 2 Descriptions evaluated to the satisfaction of the instructor.

1. Main file number
2. A register of previously assigned file numbers
3. Alphabetic card index
4. Conservative order arrangement of documents in miscellaneous alphabetic correspondence file.
5. Prenumbered documents and large quantities of names

Activity 3

1. Straight numbers - uses consecutively numbered folders
2. Terminal digits - put into three groups: Group 1, folder number; Group 2, guide number, and Group 3, drawer number.
3. Middle digit - put into three groups: Group 1, guide number; Group 2, drawer number, and Group 3, folder number.
4. Subject-numeric - combines subject and numeric filing.
5. Alphanumeric system - combines letters and numbers.
6. Phonetic classification - uses codes representing key letter sounds.
7. Chronological system - arrangement of records according to time sequence.

Activity 4

Project 1	Project 2	Project 3
502631	382161	195201
504421	152562	431507
523810	152728	273120
523909	153127	293442
524110	175019	282675
526120	176192	263276

Project 4 Evaluated to the satisfaction of the instructor.

ANSWERS TO COMPETENCY TEST

MODULE A: FILING BASICS

Part I

1. E
2. G
3. M
4. L
5. S
6. N
7. D
8. F
9. H
10. U
11. Y
12. Q
13. A
14. C
15. R
16. K
17. T
18. P
19. I
20. O
21. W
22. X
23. V
24. B
25. J

Part II Evaluated to the satisfaction of the instructor.

MODULE B: ALPHABETIC FILING

Part I

1. Caption
2. Sort
3. Key unit
4. Chronological
5. Unit
6. Cross-referencing
7. Alphanumeric
8. Coding
9. Score marks
10. Surname
11. ARMA
12. COM
13. Outgoing correspondence
14. Married woman's legal name
15. Alphabetizing
16. Correspondence
17. Store
18. CAR
19. Descending sequence
20. Ascending sequence

Part II

1. 2
2. 4
3. 5
4. 1
5. 3

Part III Answers may vary.

1. Carelessness
2. Improper use of filing equipment and/or supplies
3. Improper coding

Part IV

Project 1

	1st	2nd	3rd	4th
1.	Porter	James	Baker	Rev.
2.	Johnson	Annamae	Mrs.	
3.	Sister	Anne		
4.	March	Robert	Jr.	
5.	March	Robert	II	
6.	March	Robert	Sr.	
7.	March	Robert		
8.	McDonald	Philip		
9.	DeGarza	Helena		
10.	Simmons	Betty	M.	
11.	Simmons	Betty		
12.	Sullivan	James	L.	Dr.

Project 2

1. DeGarza, Helena
2. Johnson, Annamae Mrs.
3. March, Robert
4. March, Robert II
5. March, Robert, Jr.
6. March, Robert, Sr.
7. McDonald, Philip
8. Porter-James, Baker Rev.
9. Simmons, Betty
10. Simmons, Betty M.
11. Sister Anne
12. Sullivan, James L. Dr.

Part V

Project 1

	1st	2nd	3rd	4th
1.	Dollar	Store	The	
2.	Tru-Value	Hardware		
3.	Trudy's	Hair	Salon	
4.	Mesa	Airlines		
5.	Park	Cities	Cleaners	
6.	Baker	and	Baker	Inc.
7.	Mexicana	Airlines		
8.	Globe	Trotter	Travel	Agency
9.	Northwest	Enterprises		
10.	North	West	Travel	Agency
11.	Fourth	Avenue	Dry	Cleaners
12.	James	K.	Wilson's	

Project 2

1. Baker and Baker, Inc.
2. Dollar Store The
3. Fourth Avenue Dry Cleaners
4. Globe Trotter Travel Agency
5. James K. Wilson's
6. Mesa Airlines
7. Mexicana Airlines
8. North West Travel Agency
9. Northwest Enterprises
10. Park Cities Cleaners
11. Trudy's Hair Salon
12. Tru-Value Hardware

MODULE C: NUMERIC FILING

Part I

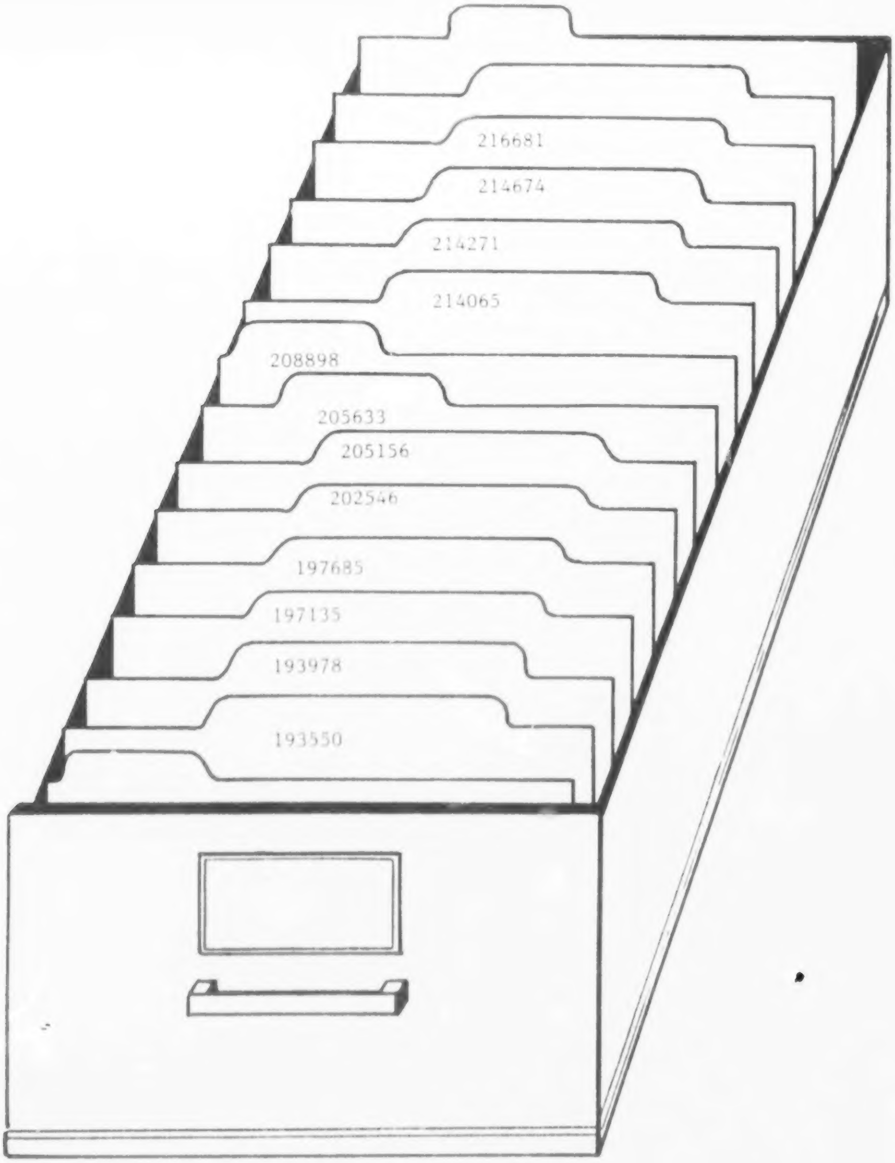
1. Terminal digit
2. Consecutive numeric
3. Sort
4. Tickler file
5. Alphanumeric
6. Transfer
7. Middle digit
8. Numeric
9. Indirect access
10. Store

Part II Answers may vary.

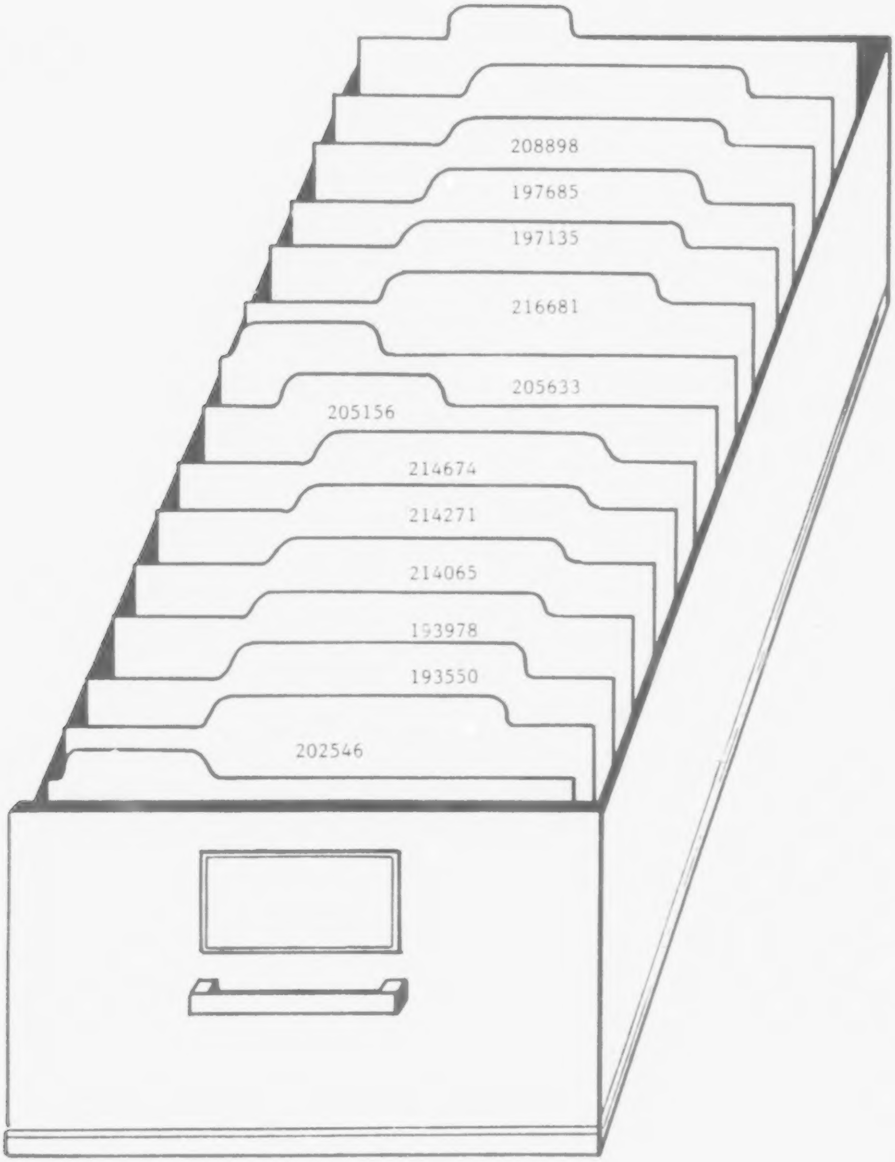
1. Main numeric file.
2. A register, accession record, or acquisition book that lists all of the previously assigned file numbers.
3. Alphabetic card index.
4. Prenumbered documents and large quantities of names.
5. Consecutive order arrangement of documents in miscellaneous alphabetic correspondence file.

Part III Evaluated to the satisfaction of the instructor.

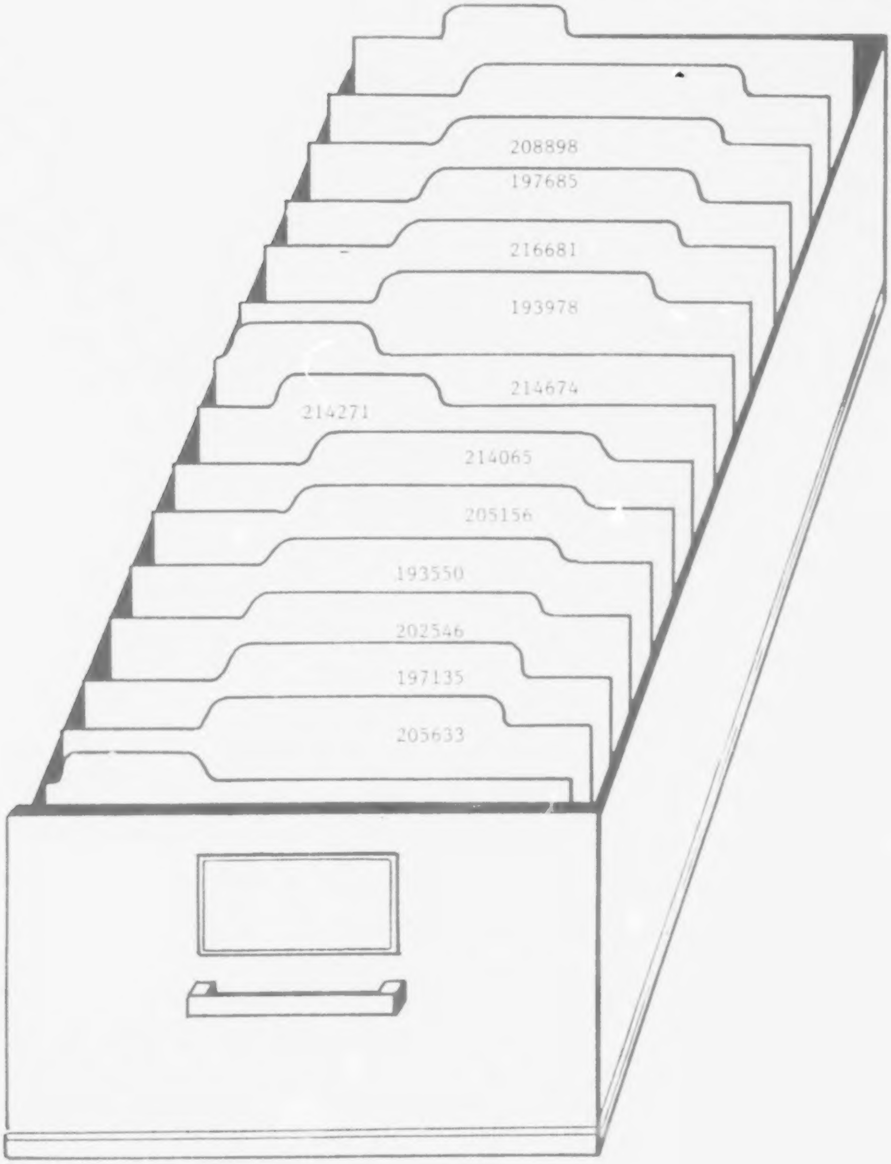
Part IV: Numeric Filing--Straight Numeric


216681
214674
214271
214065
208898
205633
205156
202546
197685
197135
193978
193550

Part IV: Numeric Filing--Middle Digit


208898
197685
197135
216681
205633
205156
214674
214271
214065
193978
193550
202546

Part IV: Numeric Filing--Terminal Digit


208898
197685
216681
193978
214674
214271
214065
205156
193550
202546
197135
205633

RESOURCES

TEXT/WORKBOOKS

ALPHABETIC INDEXING
South-Western Publishing Co.

ALPHABETIC INDEXING
South-Western Publishing Co.
15-20 class hours, text, workbook

APPLIED SECRETARIAL PROCEDURES
Gregg Division/McGraw-Hill
Book Co.

ARMA FILING RULES
Twin Oaks Publishing, Inc.

BUSINESS COMPUTER SYSTEMS
Mitchell Publishing, Inc.

BUSINESS FILING AND RECORDS CONTROL
South-Western Publishing Co.

BUSINESS RECORDS CONTROL
South-Western Publishing Co.

FILING MADE EASY
Houghton-Mifflin Co.

FILING PROCEDURE
MPC Educational Publishers
(Milady Publishing Co.)

GENERAL OFFICE PROCEDURES
South-Western Publishing Co.

INTENSIVE OFFICE SKILLS REVIEW
South-Western Publishing Co.

NUMBER FILING ON THE JOB
South-Western Publishing Co.

OFFICE FILING PROCEDURES
South-Western Publishing Co.

OFFICE PROCEDURES
Gregg Division/Mc Graw-Hill
Book Co.

OFFICE SYSTEMS AND PROCEDURES
Houghton-Mifflin Co.

PROGRESSIVE FILING
Gregg Division/McGraw-Hill
Book Co.

SECRETARIAL OFFICE PROCEDURES
South-Western Publishing Co.

PRACTICE SETS/MEDIA

ALPHABETIC FILING PROCEDURES
South-Western Publishing Co.

ALPHABETIC INDEXING FOR NAMES OF INDIVIDUALS AND BUSINESSES
Educational Development and Training Center
East Texas State University
Audiovisual package

ALPHABETIC INDEXING RULES
Forsegan

ARMA-FILE
Business Educators
P.O. Box 20142
San Jose, CA 95160

EDL FILING COURSE FILMSTRIPS
Gregg Division/McGraw-Hill
Book Co.

FILING MADE EASY, A FILING SIMULATION
Houghton-Mifflin Co.

FILING PRACTICE WORKBOOK
Glenn Publishing Co.

FILING PROCEDURES
MPC Educational Publishers
(Milady Publishing Co.)

FILING SKILLS
Prentice Hall Publishing Co.
Film, program guide, masters

GREGG QUICK FILING TRANSPARENCIES
Gregg Division/McGraw-Hill
Book Co.

GREGG QUICK FILING PRACTICE SET
Gregg Division/McGraw-Hill
Book Co.

OJT FILE CLERK
South-Western Publishing Co.

PROGRESSIVE FILING
Gregg Division/McGraw-Hill
Book Co.

SIMPLIFILE
South-Western Publishing Co.

WORKBOOK EXERCISES IN ALPHABETIC FILING
Gregg Division/Mc Graw-Hill
Book Co.

SOFTWARE

ALPHABETIC INDEXING RULES
Career Aids, Inc.
l disk, workbook, and
teacher's manual for:
Apple II, IIe, or IIc
TRS-80 Model III or IV
IBM-PC

ALPHABETIC INDEXING RULES APPLICATION BY COMPUTER
South-Western Publishing Co.
Text, workbook diskette for:
TRS-80 Model III and IV
TRS-80 Network III and IV
Apple II Plus and Apple IIc
IBM-PC
Tandy 1000

APPLEWORKS
Apple Computer

DATA HANDLER
MECC Publications

DBASE II
Ashton-Tate

FILE CLERK
Career Aids, Inc.
Microcomputer job
Simulator series
Apple 48k

INFOR STAR
MicroPro International Corp.

LIST HANDLER
Silicon Valley Systems

LOTUS 1-2-3
Lotus Development Corp.

PFS FILE
Software Publishing Corp.

QUICK-FILE
Apple Computer

MEDIA

FILING: KNOW WHERE IT GOES
Career Aids, Inc.
Filmstrip/Video from filmstrip
OSS/Filing

COMPETENCY CHECKLIST

ESSENTIAL ELEMENTS: 75.87 (d)/(m)(2)(A)

The student shall be provided opportunities to demonstrate procedures used in alphabetic and numeric filing.

OBJECTIVE:	Students will be able to understand the concepts of and demonstrate the skills necessary for alphabetic and numeric filing.	MASTERY	NON-MASTERY
	MODULE A: FILING BASICS		
1.	Identify basic filing terminology.	______	______
2.	List four methods of filing.	______	______
3.	List basic filing supplies.	______	______
4.	Recognize types of filing equipment.	______	______
5.	Define micrographics.	______	______
	MODULE B: ALPHABETIC FILING		
1.	Identify terminology related to alphabetic filing.	______	______
2.	List steps in filing correspondence.	______	______
3.	Identify reasons for misfiling.	______	______
4.	Apply filing rules to coding, indexing, and alphabetizing personal names.	______	______
5.	Apply filing rules to coding, indexing, and alphabetizing business names.	______	______
	MODULE C: NUMERIC FILING		
1.	Identify terminology related to numeric filing.	______	______
2.	List characteristics of the numeric filing system.	______	______
3.	Identify basic types of numeric filing systems.	______	______
4.	Apply basic numeric filing rules.	______	______

STUDENT NAME________________________________

SUGGESTED UNIT LESSON PLAN

SECTION II: FILING

UNIT II: ELECTRONIC FILING

ESSENTIAL ELEMENT: 75.87 (d)/(m)(2)(B) **ALLOCATED TIME:** 5-10 Hours

UNIT OBJECTIVE: Students will be able to identify concepts and demonstrate skills necessary for electronic filing.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Identify electronic filing terminology.
2. Apply electronic filing concepts.

FOCUS: Almost all organizations use more than one system for filing. The use of computers in the business office has resulted in more rapid and efficient systems for filing. The beginning office worker needs to be familiar with electronic filing. For this reason, this unit addresses electronic filing in detail.

DOMAINS: Activities and competency tests have been designed to provide learning experiences utilizing the cognitive, psychomotor, or affective domains. Activities and competency tests are coded on the Activity and Competency Test Matrices.

BASIC SKILLS: Activities and competency tests have been designed to reinforce the basic skills of reading, writing, and/or mathematics. Activities and competency tests have been coded on the Activity and Competency Test Matrices.

CONTENT OUTLINE

I. Concepts of electronic filing
  A. Objectives of using databases
  B. Advantages and disadvantages of database management systems
  C. Purposes of a database
  D. Elements of a database
  E. Applications
II. Practical applications of electronic filing
  A. Capabilities of databases
  B. Using a database

SUGGESTED TEACHER ACTIVITIES

General Teacher Preparation

1. Preview unit.
2. Review unit objectives.
3. Make instructional analysis.
4. Assess student learning needs.
5. Decide on lesson domain: cognitive, psychomotor, or affective domain.
6. Select instructional materials based on instructional analysis and student learning needs.
7. Select instructional strategies based on lesson content and student learning needs.
8. Prepare lesson plans from the unit lesson.
9. Prepare additional instructional material.
10. Reserve necessary media and equipment.

Teacher Presentation

1. Present student objectives.
2. Establish rapport with students.
3. Review lesson objectives with students.
4. Relate lesson to prior or future learning.
5. When appropriate, encourage student interaction through questioning, discussions, or some other strategy.
6. Emphasize the value/importance of the unit or activity.
7. Allow time for closure of a lesson.

Reteach Activities

1. Identify area(s) of weakness from results of evaluation.
2. Select unit activities not previously used.
3. Use additional resources and/or create materials based on student learning needs.
4. Use a different teaching strategy in reteaching.
5. Retest.

Specific Teaching Suggestions

1. Review the "Specific Teaching Suggestions" included in Unit 1: Alphabetic and Numeric Filing.

2. In the competency test for this unit, you may wish to use only the cards pertaining to one individual class and not the entire list of your students.

3. This unit may include much more detailed information concerning databases than you want to include in your study. You, the teacher will have the option of how detailed you want the study to be. The following information is included for you and is not in the student section overview.

Additional Teacher Information:

Creating a database

1. System specifications are designed to guide in creating a database that will be a functional information system.

    a. Elements of the system specifications include:

        (1) **Problem definition**--provides description of results to be attained, which should be complete enough to cover all expectations.

        (2) **System flow description**--provides a simple system flowchart as a basis for translating the problem definition statement into a series of events and elements that provide the computer solution.

        (3) **Data structure definition**--identifies each file name, data type, and the number of characters to be included in all the fields that make up individual records.

        (4) **Input description**--examines documents that will contain source data. The best way to specify input is to work with copies or layouts of all source documents.

        (5) **Processing description**--in simple terms, the user should list the processing functions (calculations) that will be applied to file or input records to produce either updated files or output.

        (6) **Output description**--depicts formats for presenting information on output documents. Reports and other output can be displayed on the screen or printed on a printer.

        (7) **Test data**--a set of data to be processed as a means of determining whether the system will do the job for which it is intended.

            (a) The test data should contain both valid and erroneous, or unacceptable, items.

            (b) If the test data set is designed properly, the valid transactions will test a system to its full capabilities, and the invalid items will ensure that the system can deal with entries that require rejection.

    b. **Procedures for creation of a database**--creating means that you are making space on the disk for your data.

        (1) Define the structure of characteristics of your data, including the following:

(a) **The name for the attribute**--field or data item

(b) **The data type**--alphabetic, numeric, or logical

(c) **The length of the data value**--how many characters should be reserved for each attribute. The maximum number of characters would be reserved.

(2) **Enter data**--once the structure has been sent through commands, such as CREATE, STORE, or DEFINE, most software packages will ask you to enter your data.

(a) Enter one record at a time, attribute by attribute.

(b) Most software will provide a form onto which the data are to be entered. This form will appear on the screen and may indicate the attribute name, data type, and maximum length, as specified in the structure.

(c) Some databases do not permit changing the structure once it has been established and data entered, but all permit adding more records. Indeed, appending data to a file is one of the most frequent activities.

2. Forms design

a. **Input forms**--the form should be designed with the objective of making data entry as smooth and easy as possible. Some considerations are:

(1) **Source documents**--data to be keyed (usually paper documents).

(a) If there has been good planning, these source documents are well arranged and will be easy for a data entry clerk to enter.

(b) The screen input form should, if possible, follow the same order as the source document to minimize eye movements and searching.

(2) **Logical groupings**--it is easier to enter data if related fields are continuous on the form. Once again, smooth movements from one field to the next lead to faster and more accurate data entry.

(3) **Spacing**--the screen should be well balanced, not crowded or cluttered.

(a) Leave enough space between fields for good visibility, but do not spread them out unnecessarily.

(b) The appearance should be as pleasing as possible for the persons who must look at the screen for long periods of time.

(4) **Prompts**--the words and other characters displayed on the screen should clearly indicate what data are expected, but should be brief. Use consistent abbreviations and punctuation.

(5) The software being used controls what options are available to the designer.

  (a) Some packages give complete freedom of screen design, others give very little.

  (b) The database portion of LOTUS 1-2-3 requires all data to be entered in spreadsheet format.

b. **Report forms**--most reports are classified as either labels or lists.

(1) **Label**--a form that is designed to print data from an individual record.

  (a) A label can be a single line of print or many lines.

  (b) Many programs also allow the user to specify several labels to be printed side by side.

  (c) The arrangement of data on the labels is entirely up to the user.

(2) **List**--also called page format, this form consists of headings at the top of the page followed by a print line for each record to be included.

  (a) Fields are selected and arranged by the user.

  (b) There are numerous options, such as page length and width, printing of page numbers, and line spacing.

c. **Field formatting**--at the same time fields are named during input design, information about the field must also be given.

(1) Data can be classified into several types: alphanumeric, and several numeric options, such as dollars and cents, percentage, fixed decimal, and date.

(2) Each type of data fits into the following field types:

  (a) **Text field**--used to hold the characters A-Z, digits 0-9, and special characters such as . , % - @ #.

  (b) **Date field**--used to enter formal calendar dates.

  (c) **Numeric field**--holds values, decimals, and calculating numbers.

(3) The maximum and minimum field length and whether a field may be left blank are also specified.

3. **Setup procedures**--starting up a new database is usually accomplished through menu commands.

    a. The first job is to follow the instructions for creating the input form that has been designed. (Output forms can be created at any time.) Once the form is complete, the program is ready for data entry.

    b. During subsequent sessions, the first step is to select the database by name and then follow the menu to bring up the input form or call for other activities. The program takes care of all recordkeeping and always knows how many records have been entered.

4. **Forms manipulation**--the program, the data, the paper size, and the printer all play a part in information management applications, and they must be coordinated.

    a. It is common to use special forms with database reports and particularly with label printing.

    b. Single width labels are referred to as "one up," and quadruple width labels as "four up."

        (1) When labels are printed, the page length must be set to agree with the label size.

        (2) When using page format, the paper can be of any size, including longer and wider than the default size.

ACTIVITY MATRIX

Activities	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
1	X			X		
2 Project 1	X				X	
Project 2	X				X	
Project 3	X	X			X	

COMPETENCY TEST MATRIX

Parts	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
I	X			X		
II	X	X		X		

COMPETENCY TEST

PART I: TERMINOLOGY

INSTRUCTIONS: Match the terms with the definitions:

A. Truncate
B. Sort
C. Select
D. Search
E. Record
F. Prompt
G. Ascending sequence
H. Key
I. Category
J. File
K. Field
L. Descending sequence
M. Delete
N. Default
O. Database
P. Criteria
Q. Create

_______ 1. Arranged in order from lowest to highest (or alphabetically from A-Z).

_______ 2. A class of data such as a name, date, costs, or part number (a field).

_______ 3. Establishing the records and fields to be used in a database.

_______ 4. A collection of data relating to a subject, organized to make information accessible for a variety of needs.

_______ 5. To remove a record from a file.

_______ 6. The rules used for selecting records from the database.

_______ 7. A set of related records stored together.

_______ 8. A subdivision of a record. An item of data within a record.

_______ 9. Arranged in order from highest to lowest (or alphabetically from Z-A).

_______ 10. The automatic value of an option if the user does not specify a choice.

_______ 11. To drop or cut off characters in a field to make it a certain length.

_______ 12. To arrange records according to a predetermined sequence.

_______ 13. A field or category within a record that is used to identify, select, or sort records.

_______ 14. A symbol or word to inform the user that a response is needed.

_______ 15. One or more related items of data stored as a unit.

_______ 16. To choose records from a file according to rules or criteria.

_______ 17. To look for all records that meet a set of criteria.

PART II: ELECTRONIC FILING CONCEPTS

INSTRUCTIONS: **Using the database that you set up for Activity 2, Project 3 in this unit, and following the instructions of your teacher, delete records, add records, change telephone numbers and/or addresses. After the changes are made, extract an alphabetical list in ascending order.**

ANSWERS TO ACTIVITIES

Activity 1

```
    S
S QUERY
O   A    S
RECORD   CDROM
T   C    H
 ALPHANUMERIC
 S       M
 C  DATABASE
 E    R       F D F
 N    U     CRITERIA
 DESCENDING   L F N
 I  A C       E A D
 N  T A C    D  U
 G  E T RETRIEVAL
    G E E    L  T
    O   A  FIELD
   PROMPT    T
    Y   E   KEY
```

Activity 2

Project 1

1. Decreasing repetitive work. Data, once entered, need not be entered again.

2. Increasing accuracy. Humans are subject to many factors, such as fatigue, which increase the chance of error.

3. Eliminating inaccuracy. By entering data just once into a database and verifying their accuracy immediately, almost all cases of inaccurate data can be eliminated.

4. Increasing efficiency. Because the data are entered only once and then processed at computer speeds, results are obtained much faster.

Project 2 Answers will vary. Any four of the following:

1. Add or enter. This function is used to load data into a file through entries to a format or screen display.

2. Update or edit. This function is used to change records that already are part of a file.

3. Delete. Obsolete records can be removed from the database. Periodically, the whole file can be recopied.

4. Sort or arrange. This function arranges records within a single file in sequence.

5. Search or index. This function creates an index used to find records within a file.
6. Query. If a particular item of information is needed, a key field (account number for example) could be entered and the data relevant to that account displayed.
7. Select. This function copies complete records or rows from records into a working file, leaving the existing file undisturbed.
8. Report. After being selected and rearranged to suit a particular purpose, the information needed can be formatted into a report.

Project 3 Evaluated to the satisfaction of the instructor.

ANSWERS TO COMPETENCY TEST

Part I

1. G
2. I
3. Q
4. O
5. M
6. P
7. J
8. K
9. L
10. N
11. A
12. B
13. H
14. F
15. E
16. C
17. D

Part II Evaluated to satisfaction of instructor.

RESOURCES

TEXTBOOKS

ADVANCED DBASE III PLUS
Borland, Osborne, and MicroPro

APPLEWORKS TUTORIAL
Apple Computer Co.
Borland, Osborne, and MicroPro
McGraw-Hill Book Co.

THE ART OF USING COMPUTERS
Boyde and Fraser Publishing Co.

COMPUTER FUNDAMENTALS IN THE INFORMATION AGE
Anaheim Publishing Co.

DATABASE APPLICATIONS
South-Western Publishing Co.

DBASE III PLUS MADE EASY
Borland, Osborne, and MicroPro

DBASE III PLUS: THE COMPLETER REFERENCE
Borland, Osborne, and MicroPro

ELECTRONIC OFFICE PROCEDURES
Gregg Division/McGraw-Hill Book Co.

INFORMATION PROCESSING CONCEPTS, PRINCIPLES, AND PROCEDURES
South-Western Publishing Co.

INFOSTAR TUTORIAL
Craven Publishing Co.

INTEGRATED SOFTWARE PRINCIPLES AND APPLICATION USING LOTUS 1-2-3
Gregg Division/McGraw-Hill Book Co.

THE LOTUS GUIDE TO LEARNING 1-2-3
Addison Wesley Publishing

OFFICE SYSTEMS AND PROCEDURES
Houghton-Mifflin Co.

USING DBASE III PLUS
Borland, Osborne, and MicroPro

ISOMG REFLEX: THE DATABASE MANAGER
Borland, Osborne, and MicroPro

PRACTICE SETS

APPLEWORDS-INTEGRATED APPLICATIONS FOR MICROCOMPUTERS
South-Western Publishing Co.

APPLICATIONS USING THE PERSONAL COMPUTER
South-Western Publishing Co.

COMPUTERIZED INVENTORY PROCEDURES
South-Western Publishing Co.

GIFTIQUE: AN INFORMATION MANAGEMENT WORKFLOW
South-Western Publishing Co.

MICROCOMPUTER SIMULATION IN BUSINESS
South-Western Publishing Co.

SNOWDRIFT ICE CREAM
Gregg Division/McGraw-Hill Book Co.

TRONICS, INC.
South-Western Publishing Co.

WORD PROCESSING CONCEPTS AND APPLICATIONS
Gregg Division/McGraw-Hill Book Co.

SOFTWARE

APPLEWORKS
Apple Computer Co.

APPLICATIONS USING THE PC
South-Western Publishing Co.

COMPUTER APPLICATIONS: DATABASE
Educational Activities Inc.
Apple II, IIe, IIc 48k
IBM PC, XT, AT 128k

DATABASE APPLICATIONS
South-Western Publishing Co.

DATABASE MANAGEMENT SYSTEMS: AN INTRODUCTION
Educational Activities Inc.
Apple II, IIe, IIc 48k
IBM PC, XT, AT 128k

DBASE III
Ashton-Tate
IBM PC, XT, AT 256k

ELECTRIC DESK
Alpha Software

FILING ASSISTANT INSTRUCTIONAL MODULE
Pass Publications

FRAMEWORK II
Ashton-Tate Publishing

FRAMEWORK III
Wordware Publishing

IBM FILING ASSISTANT
IBM Personal Computer Division

INFOSTAR
MicroPro International Corp.

INTRODUCTION TO DATABASE
Learning Arts
IBM PC, XT, AT 128k

JAZZ
Lotus Development Corp.

LOTUS 1-2-3
Lotus Development Corporation

MICROSOFT WORKS
Microsoft

OPEN ACCESS
Software Products International

PFS: FILE AND REPORT
Software Publishing Corp.

Q&A
Symantec
IBM PC, XT, AT 512k

QUICK FILE II
Apple Computer Co.

REFLEX: THE ANALYST
Borland International
IBM PC, XT, AT 128k
Macintosh, Macintosh +

REFLEX WORKSHOP
Borland International
IBM PC, XT, AT 128k
Macintosh, Macintosh +

SORTING TECHNIQUES I
J. Weston Walch, Publisher
Apple II, IIe, IIc 48k

SORTING TECHINIQUES II
J. Weston Walch, Publisher
Apple II, IIe, IIc 48k

WRITING ASSISTANT
IBM Personal Computer Division

MEDIA

INTRODUCTION TO DBASE III PLUS
Career Publishing, Inc.

INTRODUCTION TO DBASE III PLUS, Level II
Career Publishing, Inc.

INTRODUCTION TO DBASE III PLUS, Level III
Career Publishing, Inc.

INTRODUCTION TO APPLEWORKS DATABASE
Career Publishing, Inc.

COMPETENCY CHECKLIST

ESSENTIAL ELEMENTS: 75.87 (d)/(m)(2)(B)

The student shall be provided opportunities to demonstrate procedures used in electronic filing.

OBJECTIVE:	**Students will be able to identify the concepts and demonstrate skills necessary for electronic filing.**	MASTERY	NON-MASTERY
1.	Identify electronic filing terminology.	________	________
2.	Apply electronic filing concepts.	________	________
		________	________
		________	________

STUDENT NAME ____________________________________

SECTION II: FILING

UNIT I: ALPHABETIC AND NUMERIC FILING

UNIT OBJECTIVE: Students will be able to understand the concepts of and demonstrate the skills necessary for alphabetic and numeric filing.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

MODULE A: FILING BASICS

1. Identify basic filing terminology.
2. List four methods of filing.
3. List basic filing supplies.
4. Recognize types of filing equipment.
5. Define micrographics.

MODULE B: ALPHABETIC FILING

1. Identify terminology related to alphabetic filing.
2. List steps in filing correspondence.
3. Identify reasons for misfiling.
4. Apply filing rules to coding, indexing, and alphabetizing personal names.
5. Apply filing rules to coding, indexing, and alphabetizing business names.

MODULE C: NUMERIC FILING

1. Identify terminology related to numeric filing.
2. List characteristics of the numeric filing system.
3. Identify basic types of numeric filing systems.
4. Apply basic numeric filing rules.

FOCUS: Business records are a vital part of an organization. These records consist of information or data which must be stored. Once stored, the records must be easily accessible when needed. Several systems are used in business to store this information. Two of the common methods for storing information use the alphabetic system and the numeric system. The office worker needs to be familiar with the procedures for using these two systems.

TERMINOLOGY

MODULE A: FILING BASICS

Active records	Records that must be accessible because they are used regularly.
Caption	The written, typed, or printed heading on tabs or guides.
Centralized file storage system	A storage system in which all company files are located in a central area.
Decentralized file storage system	A storage system in which files are placed in different locations, either near the user or where space is available.
Direct-access system	A filing system that permits the user to go directly to the files to locate a record without first referring to an index.
Filing	The systematic process of classifying, arranging, and storing information so that it can be easily retrieved.
Filing equipment	The cabinets or other structures used in an office for the storage of files.
Filing supplies	Basic materials, such as file folders, used to file records stored in an office.
Filing system	The storing of records according to a specific organizational design, using basic filing supplies and equipment.
Folder	The container in which papers or materials are kept in a file drawer. Commonly made from manila paper, plastic, or pressboard.
Geographic filing	System of filing records by geographic location.
Given name	Name given to you at birth (your first name and/or middle name).
Guides	Stiff pieces of cardboard or other material that divide a file drawer into sections, serve as markers to aid in the quick location of records, and provide support for the file folders.
Inactive records	Records that may be moved to inactive storage or discarded because they are used infrequently.
Incoming correspondence	All correspondence that originates outside the office.

Indexing	The process of reversing the order of a personal name so that the last name becomes the first unit, the first name becomes the second unit, etc. In business names, the names are indexed as written.
Indirect-access system	A filing system, such as numeric or subject system, in which the user must refer to an index before records can be found.
Individual folders	These folders contain correspondence to, from, or about an individual or company. Material is filed alphabetically, with the current date on top.
Information management	Process of controlling all information that comes into and leaves an organization.
Label	Gummed paper that is attached to the tab of a folder and identifies the folder's contents. Labels may be color-coded to aid in the accurate filing of records.
Microform	Film, such as microfiche and microfilm, that contains reduced images of documents and is used for records storage.
Microform reader	A device used to enlarge microform documents so they are legible.
Microfiche	Sheets of film that can store the reduced images of many pages of documents.
Microfilm roll	A roll of film that can store many pages of reduced text.
Micrographics	Process of reducing documents to minute images in order to store them on microfilm or microfiche.
Miscellaneous folder	A folder that holds correspondence for which there is no individual folder. Documents are filed alphabetically, then by date, with the current date on top.
Primary guides	Markers that are positioned to show the key alphabetic division in a file.
Retrieval	Locating records which are stored in the files.
Score marks	Indented or raised lines on the fold of a file folder. Creasing the folder along the various score lines allows room for more documents.
Subject filing	System of filing correspondence alphabetically by content.
Tab	The segment of a folder or guide that extends above the folder's edge and holds the caption identifying the contents. The location of the tab is called its position; the width of the tab is its cut.
Ultrafiche	The film medium upon which the smallest images of documents are stored.

UNIT OVERVIEW

MODULE A: FILING BASICS

I. Filing definition and methods

- A. Filing defined
    1. Physical process of classifying records so that they may be placed into their respective storage containers.
    2. Filing is only one of the activities that occurs as part of the information management process.
- B. Filing methods
    1. **Alphabetic filing**--arranging names or information in A, B, C, etc., order.
    2. **Numeric filing**--arranging information by number.
    3. **Geographic filing**--arranging information by location.
    4. **Subject filing**--arranging information by a specific topic.

II. Filing supplies

- A. File drawer guides are made of heavy cardboard sheets that:
    1. Serve as signposts.
    2. Make it easier and faster for material to be located.
    3. Are available in different sizes and tab locations.
- B. Primary guides separate a filing system's major divisions.
    1. May be alphabetic, numeric, geographic, chronological, or subject.
    2. Placed at the front of each section.
    3. The number of guides used depends on the number of file folders.
        - a. A good rule of thumb is to use 10-15 file folders behind each guide.
        - b. Place no more than 25 guides in each file drawer.

c. Both alphabetic divisions and numbers are used on each guide.

d. Special guides or secondary guides

(1) Subdivide the primary divisions into smaller groups.

(2) Direct the eye to a specific subject classification within a classification.

C. File folders are made of heavy, manila paper.

1. Used to hold, identify, and protect records.

2. Contain a group of related documents.

3. Folder tabs are available in several widths or cuts.

a. One-fifth cut tabs have five cut positions; each cut is one-fifth of the width of the guide.

b. One-third cuts have three positions, each cut is one-third of the width of the guide.

c. One-fourth cuts have four positions; each cut is one-fourth of the width of the guide.

d. One-half cuts have two positions; each cut is one-half of the width of the guide.

4. Each tab has a caption which identifies the folder's contents.

5. Folders are placed behind the appropriate guide in the file drawer.

6. Hanging file folders, or suspension folders, hook onto rails along the sides of the file drawer.

a. They keep the files in an upright position.

b. They prevent the files from sliding down into the drawer.

7. Types of folders

a. **Miscellaneous folders**--one is prepared for each primary guide.

(1) Placed at the back of the section right before the next primary guide.

(2) The caption matches the primary guide's caption.

(3) Used for infrequent correspondents.

(4) Documents are placed in the folder in alphabetical order first, and if there are duplicate correspondents, the most recent item is put in front of the other documents from the same correspondent.

b. Individual folders

(1) Made when 3-5 documents from one correspondent accumulate in the miscellaneous folder.

(2) Tab caption identifies the name of the account.

(3) Documents are filed chronologically in the folder with the most recent date in front.

c. Special folders

(1) Used to file papers for a number of identical but related last names, or about a particular subject.

(2) For example, all those named "Martinez" would be removed from a miscellaneous folder and placed in a special folder for rapid retrieval.

8. Folder capacity

a. As a rule of thumb, only one inch of material should be in each folder.

b. As the amount of material in the folder increases, the score marks should be increased to allow for expansion until all the scores have been creased.

D. Folder labels identify contents of individual file folders.

1. Types of folder labels

a. Self-adhesive or gummed

b. Strips, rolls, fanfolds, or pads

c. Color-coded labels

2. Preparation of folder labels

a. Type captions consistently.

b. Attach to folder tabs.

c. Make drawer labels.

E. Types of storage media

1. Paper
2. Magnetic media
3. Microfilm

III. Filing Equipment

A. File cabinet size considerations

1. **Two-drawer files**--known as half-height files.
2. **Three-drawer files**--used as a working counter.
3. **Four-drawer files**--most widely used.
4. **Five-drawer files**--most efficient for time and use of space.
5. **Six drawer files**--require a stool to reach the top drawers, but they conserve space.

B. Types of file cabinets

1. Vertical file cabinets
2. Lateral file cabinets
    a. Come in two-, three-, four-, and five-drawer heights.
    b. Shelves roll out laterally and can be pulled clear of the file cabinet.
3. Horizontal/Flat file cabinets
4. Open-shelf files (for numeric filing systems)
5. Rotary files
6. Tub files
7. Card files
8. Mobile files

IV. Micrographics

A. Micrographics is the process of reproduction of information on some type of microform.

1. Combines science and technology to allow information to be quickly reduced and reproduced on microform media.

2. Microform is a term used for any record--either film or paper--which contains reduced images or microimages.

B. Types of microforms

1. **Microfilm**--is the oldest type of microforms.

2. **Microfiche**--uses a unit-record approach so that only the desired document is placed on one card.

3. **Ultrafiche**--uses an ultrahigh reduction ratio--it is the smallest medium upon which images are stored.

4. **Microcard**--a special type of microrecord that contains images on both sides of the card.

C. Retrieving and reading microforms

1. Microform readers

2. Computer-assisted retrieval (CAR) systems

3. Paperless office

a. It is uncertain when this phenomenon will occur, but it is projected for the future.

b. The source document will be in the electronic storage media in the computer.

c. It is necessary to have a working knowledge of manual filing and data management systems to know what the computer is doing.

MODULE A: FILING BASICS

ACTIVITY 1: TERMINOLOGY

Project 1

INSTRUCTIONS: **Match the following terms with the proper definition.**

A. Folder
B. Filing
C. Incoming
D. Given name
E. Primary guides
F. Label
G. Microfiche
H. Indexing
I. Active
J. Guides
K. Micrographics
L. Ultrafiche
M. Caption
N. Geographic
O. Tab
P. Retrieval

_______ 1. Markers that are positioned to show the key alphabetic division in a file.

_______ 2. The segment of a folder or guide that extends above the folder's edge and holds the caption identifying its contents.

_______ 3. The container in which papers or materials are kept in a file drawer.

_______ 4. Records that must be accessible because they are used regularly.

_______ 5. All correspondence that originates outside the office.

_______ 6. Locating records which are stored in the files.

_______ 7. Stiff pieces of cardboard or other materials that divide a file drawer into sections.

_______ 8. Gummed paper that is attached to the tab of a folder and identifies the folder's contents.

_______ 9. The written, typed, or printed heading on tabs or guides.

_______ 10. Name given at birth.

_______ 11. System of filing records by geographic location.

_______ 12. The systematic process of classifying, arranging, and storing information so that it can be easily retrieved.

Project 1 (Continued)

_______ 13. The process of reversing the order of a personal name so that the last name becomes the first unit.

_______ 14. Process of reducing documents to minute images in order to store them on microfilm or microfiche.

_______ 15. Sheets of film that can store the reduced images of many pages of documents.

_______ 16. The film medium upon which the smallest images of documents are stored.

ACTIVITY 1 (Continued)

Project 2

A.	Microform	I.	Filing equipment
B.	Filing supplies	J.	Information management
C.	Decentralized	K.	Direct
D.	Inactive records	L.	Filing system
E.	Microform reader	M.	Subject
F.	Indirect	N.	Individual
G.	Score marks	O.	Microfilm
H.	Centralized	P.	Miscellaneous

______ 1. System of filing correspondence alphabetically by content.

______ 2. A storage system in which all company files are located in a central area.

______ 3. Film, such as microfiche and microfilm, that contains reduced images of documents and is used for records storage.

______ 4. A folder that holds correspondence for which there is no individual folder.

______ 5. A filing system, such as numeric or subject system, in which the user must refer to an index before records can be found.

______ 6. The cabinets or other structures used in an office for the storage of files.

______ 7. A roll of film that can store many pages of reduced text.

______ 8. A storage system in which files are placed in different locations, either near the user or where space is available.

______ 9. Basic materials, such as file folders, used to file records stored in an office.

______ 10. Process of controlling all information that comes into and leaves an organization.

______ 11. A device used to enlarge microform documents so they are legible.

______ 12. A filing system that permits the user to go directly to the files to locate a record without first referring to an index.

______ 13. Indented or raised lines on the fold of a file folder.

Project 2 (Continued)

_______ 14. These folders contain correspondence to, from, or about an individual or company.

_______ 15. A filing system, such as numeric or subject system, in which the user must refer to an index before records can be found.

_______ 16. The storing of records according to a specific organizational design, using basic filing supplies and equipment.

ACTIVITY 2: METHODS OF FILING

INSTRUCTIONS: **Place the appropriate letter next to the descriptions provided. Letters may be used more than once.**

A.	Alphabetic	G.	Geographic
N.	Numeric	S.	Subject

__________ 1. Filing according to topics.

__________ 2. Organized like a telephone book.

__________ 3. Filing according to names of city and state.

__________ 4. Filing by names.

__________ 5. Filing by numbers.

ACTIVITY 3: FILING SUPPLIES

INSTRUCTIONS: **Visit a local office supply store, and examine the types of filing supplies they sell. Write a brief description of your findings. Request their catalog, and bring it to class for further study.**

ACTIVITY 4: FILING EQUIPMENT

INSTRUCTIONS: **Using recent magazines and supply catalogs, find an example of each type of filing equipment on the list provided by your teacher. Mount and label each piece of equipment.**

ACTIVITY 5: MICROGRAPHICS

INSTRUCTIONS: **Circle T for true or F for false for each of the following statements.**

T F 1. Microfilming is not used very much in large businesses.

T F 2. Microfilmed information is located quickly on a machine called a reader.

T F 3. Most microfilm readers are not equipped to print a hard copy.

T F 4. A microform is either film or paper that contains microimages.

T F 5. Microfilm is the same as microfiche.

T F 6. Microfilm is more difficult to store than paper.

T F 7. A sheet of microfiche is easier to use than a roll of microfilm.

T F 8. The cost of microfilming is constantly increasing.

T F 9. Microfilm is difficult to update.

T F 10. Special equipment is not needed to read microfilm or microfiche.

TERMINOLOGY

MODULE B: ALPHABETIC FILING

Active records	Records that must be accessible because they are used regularly.
Alphabetizing	Putting names in order according to the letters of the alphabet.
Alphanumeric	Data items which may contain digits, letters, or special characters.
ARMA	Association of Records Managers and Administrators, Inc.
Ascending sequence	Data are arranged in order from lowest to highest, or alphabetically from A to Z.
Caption	The written, typed, or printed heading on tabs or guides.
Centralized file storage system	A storage system in which all company files are located in a central area.
Chronological	Filing the most current correspondence on top of the filed stack--files arranged by date or time.
Coding	Marking units in a filing segment.
Computer-assisted retrieval (CAR)	The linking of computers and micrographic equipment for automatic retrieval of data from microforms.
Computer output microform (COM)	Computer output is reduced and printed onto a microform by a special device.
Correspondence	Written communication between a company and its branches, other businesses, and individuals in the form of letters, memorandums, telegrams, invoices, purchase orders, and other papers sent or received by the company.
Cross-referencing	Creating messages that refer the user to another location for the desired file.
Descending sequence	Arranged in sequence from highest to lowest, or alphabetically from Z to A.
Direct-access system	A filing system that permits the user to go directly to the files to locate a record without first referring to an index.

Individual folders	These folders contain correspondence to, from, or about an individual or company. Material is filed alphabetically, with the current date on top.
Key unit	A field or category within a record that is used to identify, select, or sort records.
Married woman's legal name	This designation consists of the woman's first name, her middle or maiden name, and her husband's surname.
Miscellaneous folder	A folder that holds correspondence for which there is no individual folder. Documents are filed alphabetically, then by date, with the current date on top.
Outgoing correspondence	All correspondence that originates within an office.
Primary guides	Markers that are positioned to show the key alphabetic division in a file.
Score marks	Indented or raised lines on the fold of a file folder. Creasing the folder along the various score lines allows room for more documents.
Sort	Arrange records according to a predetermined sequence.
Store	Organize (or file) records in a file according to the alphabet, subject, date, or number.
Surname	A person's last name or family name.
Tab	The segment of a folder or guide that extends above the folder's edge and holds the caption identifying the contents. The location of the tab is called its position; the width of the tab is its cut.
Unit	A segment of a name used in determining the alphabetic order in a filing system.

UNIT OVERVIEW

MODULE B: ALPHABETIC FILING

I. Steps for filing correspondence

  A. Inspecting for a release mark

    1. A *release mark* shows that a document has been processed and gives the authority to file the document.

      a. A check mark, initials, and a date, a signature, or a file notation are various forms of release marks used by companies.

      b. If there is no release mark, the document should be returned to the person in charge.

    2. If a release mark is present, perform the following:

      a. Tape any torn papers.

      b. Remove all pins, paper clips, staples, and rubber bands.

      c. Fold oversized papers to fit the folder.

      d. Staple related papers together, placing the most recent date on top.

      e. Staple small-sized papers to a standard-sized sheet of paper.

  B. Indexing correspondence

    1. *Indexing* is deciding where and in what type of filing system correspondence should be stored.

    2. Determine the proper order of the information.

      a. Read or scan each document carefully to determine the key topic or title that best identifies the material.

      b. A *caption* or *heading* identifies information for filing with a name, letter, or number.

      c. The following items must be examined to determine the proper caption:

        (1) Letterhead information.

(2) Incoming correspondence is indexed by letterhead or signature of the sender.

(3) Outgoing correspondence usually is indexed by the inside address, subject discussed, or geographic area.

C. *Coding* correspondence is the procedure of showing how a record should be filed.

1. Marking the units of correspondence with names or numbers is called *coding*. The following are methods of coding:

   a. Underlining the caption.

   b. Circling the caption.

   c. Writing the caption in the upper right-hand corner when proper information does not appear on the first page.

2. Preparing cross references is another part of coding.

D. Cross-referencing procedures

1. Properly indexed and coded correspondence is filed under the caption by which it is most likely to be requested from the file; however, when a document may be requested by several names, appropriate cross-references are compiled.

2. Situations which may require cross-referencing are:

   a. Names that are foreign or unusual.

   b. Names of women who are known by both their married and maiden names.

   c. Worker uncertainty about how a file should be coded.

E. Sorting is the process of arranging records in the proper order for filing, according to the alphabet or some other desired sequence.

1. Divide the records into smaller groups of information.

   a. First, perform a *rough sort* into divisions such as A-D, E-H, I-M, N-T, U-Z.

   b. Then, *fine sort* each stack into the exact order for filing.

2. Commercial sorters are available.

II. Misfiling

   A. Causes for misfiling

      1. Carelessness

         a. Failing to scan the contents of a file folder to make sure that the record being added relates to the other documents in the file.

         b. Leaving a paper clip that has picked up unrelated documents.

         c. Placing one folder inside another folder.

      2. Improper use of filing equipment and/or supplies

         a. Utilizing either too many or not enough guides.

         b. Allowing tabs to be hidden or broken off because of overcrowding folders.

         c. Overstuffing file drawers so that there is inadequate workspace within a drawer.

         d. Leaving in miscellaneous folders those records that should have already been filed in specific folders.

      3. Improper coding includes:

         a. Miscoded documents.

         b. Transposed numbers.

         c. Cross references are not made.

         d. Additional causes include:

            (1) Carelessness in spelling.

            (2) Hurrying too much.

            (3) Lack of concentration.

   B. Ways of preventing the loss of records

      1. When filing, stand to the side of the file drawer; this eliminates having to reach too far and accidentally filing the record in the wrong file.

      2. Make sure that the filing area has proper lighting.

      3. Raise the folder in which the record is to be stored.

4. Do not use paper clips, because there is a tendency for records to get caught on them and misfiled.

5. After using a folder, return it immediately to the file drawer.

III. *Alphabetic filing* is the arrangement of names or other captions in sequential order from A-Z--similar to the sequence in a telephone directory.

A. Alphabetic filing is a *direct-access* system, because the user can access the file without going to an index first.

B. Clearly defined rules ensure standardization.

1. Association of Records Managers and Administrators, Inc., (ARMA) is one of the primary sources of filing rules.

2. There are several other sources that may be consulted for filing rules.

3. The worker should use the system that has been established at his/her place of employment.

C. Classification by name is a *straight alphabetic filing* method.

1. This method includes names of individuals, organizations, businesses, industries, government agencies, geographic locations, etc.

a. A caption is selected to file names correctly.

b. Generally, individual names are filed under the last name.

c. Business names are generally filed by the first main word in the name.

2. Classification by subject or geographic location are two variations of the straight alphabetic method.

MODULE B: ALPHABETIC FILING

ACTIVITY 1: TERMINOLOGY

INSTRUCTIONS: **Match the following terms with the proper definition.**

A. Chronological
B. Cross-referencing
C. Unit
D. Outgoing
E. ARMA
F. Direct
G. Score marks
H. Active
I. Coding
J. Surname
K. Key unit
L. Alphanumeric
M. Sort
N. Individual
O. Ascending sequence
P. Correspondence
Q. Married woman's legal name
R. Computer-assisted retrieval (CAR)
S. Primary guides
T. Caption
U. Alphabetizing
V. Store
W. Descending sequence
X. Centralized
Y. Miscellaneous
Z. Tab
AA. Computer output microform (COM)

_______ 1. Indented or raised lines on the fold of a file folder.

_______ 2. Putting names in order according to the letters of the alphabet.

_______ 3. Association of Record Managers and Administrators, Inc.

_______ 4. A segment of a name used in determining the alphabetic order in a filing system.

_______ 5. Written communication between a company and its branches and other businesses and individuals in the form of letters.

_______ 6. Filing the most current correspondence on top of the filed stack.

_______ 7. The linking of computers and micrographic equipment for automatic retrieval of data from microforms.

_______ 8. Data items which may contain digits, letters, or special characters.

_______ 9. Markers that are positioned to show the key alphabetic division in a file.

_______ 10. A person's last name or family name.

_______ 11. A folder that holds correspondence for which there is no individual folder.

ACTIVITY 1 (Continued)

_______ 12. These folders contain correspondence to, from, or about an individual or company.

_______ 13. Arranged in sequence from highest to lowest, or alphabetically from Z to A.

_______ 14. Arrange records according to a predetermined sequence.

_______ 15. The written, typed, or printed heading on tabs or guides.

_______ 16. Computer output is reduced and printed onto a microform by a special device.

_______ 17. Data are arranged in order form lowest to highest, or alphabetically from A to Z.

_______ 18. All correspondence that originates within an office.

_______ 19. A storage system in which all company files are located in a central area.

_______ 20. A filing system that permits the user to go directly to the files to locate a record without first referring to an index.

_______ 21. The segment of a folder or guide that extends above the folder's edge and which holds the caption identifying the contents.

_______ 22. Creating messages that refer the user to another location for the desired file.

_______ 23. Organize (or file) records in a file according to the alphabet, subject, date, or number.

_______ 24. Records that must be accessible because they are used regularly.

_______ 25. A field or category within a record that is used to identify, select, or sort records.

_______ 26. This designation consists of the woman's first name, her middle or maiden name, and her husband's surname.

_______ 27. Marking units in filing segment.

ACTIVITY 2: STEPS IN FILING

INSTRUCTIONS: **List in order, and briefly describe the five steps involved in filing correspondence.**

1.

2.

3.

4.

5.

ACTIVITY 3: REASONS FOR MISFILING

INSTRUCTIONS: **List and describe the causes of misfiling records and the ways of preventing the loss of records.**

Causes of misfiling

Ways of preventing the loss of records

ACTIVITY 4: PERSONAL NAMES

Project 1

INSTRUCTIONS: **In the past, there were several authorities which established rules or policies for alphabetic filing. Association of Record Managers Administrators, Inc., (ARMA) is now considered the main source of filing rules which will be the basis of your study. As your teacher reviews a specific rule, write it down, and give an example.**

ALPHABETIC RULES FOR ALPHABETIC FILING: PERSONAL NAMES

1.

Example:

2.

Example:

3.

Example:

4.

Example:

5.

Example:

ACTIVITY 4 (Continued)

Project 1 (Continued)

6.

Example:

7.

Example:

8.

Example:

9.

Example:

ACTIVITY 4 (Continued)

Project 2

INSTRUCTIONS: Properly code the following names.

0.	J./R./Aaron	Aaron	J.	R.
1.	Janice Woodward			
2.	Kellee Rayburn			
3.	Carolyn H. Johnson			
4.	D. A. Flanagan			
5.	F. Procelle			
6.	C. B. Grant			
7.	Joanne Garner			
8.	B. O. Proffitt			
9.	Sidney Ballou			
10.	D. B. Abbett			
11.	Tom Flaherty			
12.	Keller Rayburn			
13.	Nancy Abbott			
14.	Philip Mayer			
15.	Cecil Grant			

ACTIVITY 4 (Continued)

Project 3

INSTRUCTIONS: **From the indexed name in Project 2, put the names in correct alphabetic filing order in the space below.**

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________
6. ______________________________
7. ______________________________
8. ______________________________
9. ______________________________
10. ______________________________
11. ______________________________
12. ______________________________
13. ______________________________
14. ______________________________
15. ______________________________

ACTIVITY 4 (Continued)

Project 4

INSTRUCTIONS: Code the names listed below. Then arrange the names in correct indexing order in the space provided.

		1st	2nd	3rd	4th
1.	Janice La Corte				
2.	John B. Garrett, II				
3.	Mary Fitz-Gibbons				
4.	Prince John				
5.	Min Kwang Shik				
6.	Marie Garcia-Romero				
7.	John B. Garrett, III				
8.	Nancy DaSilva, M.D.				
9.	Mrs. Patricia Macy				
10.	Alfred Garcia, Sr.				

ACTIVITY 4 (Continued)

Project 4 (Continued)

		1st	2nd	3rd	4th
11.	Dr. John James				
12.	Father James				
13.	Michael Delacy				
14.	Alex D'Agostino				
15.	Thomas F. DaGroomes				

ACTIVITY 4 (Continued)

Project 5

INSTRUCTIONS: **From the indexed names in Project 4, put the names in correct alphabetic filing order in the space provided.**

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________
6. ______________________________
7. ______________________________
8. ______________________________
9. ______________________________
10. ______________________________
11. ______________________________
12. ______________________________
13. ______________________________
14. ______________________________
15. ______________________________

ACTIVITY 4 (Continued)

Project 6

INSTRUCTIONS: **Using the names provided in Projects 3 and 5, put the names is correct alphabetic filing order.**

1. ______
2. ______
3. ______
4. ______
5. ______
6. ______
7. ______
8. ______
9. ______
10. ______
11. ______
12. ______
13. ______
14. ______
15. ______
16. ______

ACTIVITY 4 (Continued)

Project 6 (Continued)

17. ______________________________

18. ______________________________

19. ______________________________

20. ______________________________

21. ______________________________

22. ______________________________

23. ______________________________

24. ______________________________

25. ______________________________

26. ______________________________

27. ______________________________

28. ______________________________

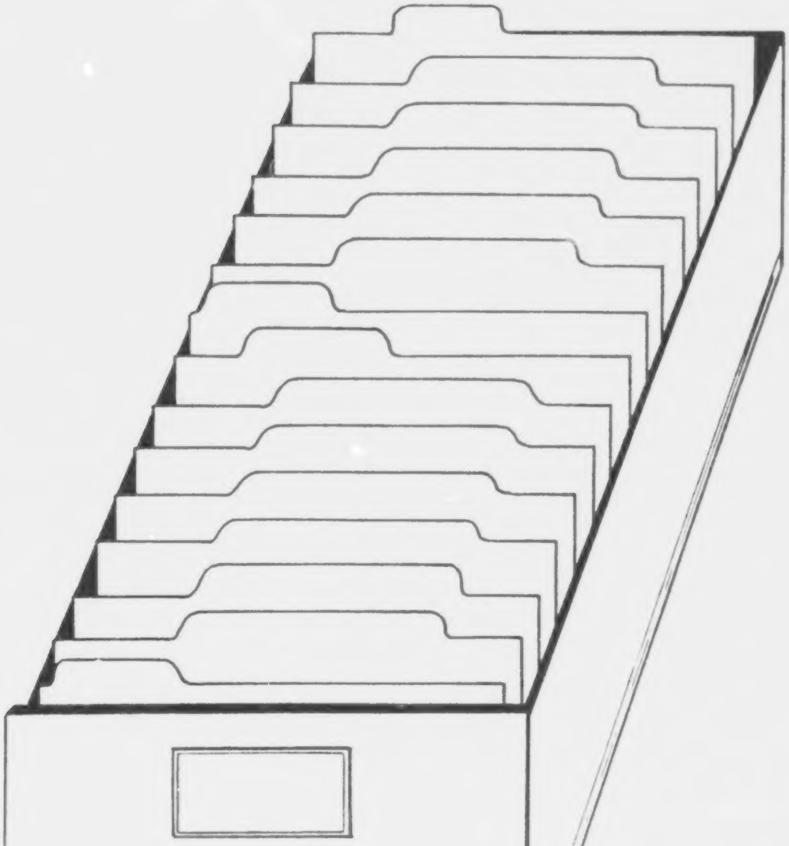
29. ______________________________

30. ______________________________

ACTIVITY 4 (Continued)

Project 7

INSTRUCTIONS: **From a list of personal names given you by the teacher, code and index the names, and then put the names in alphabetic order using the file drawer on this page.**



ACTIVITY 4 (Continued)

Project 8

INSTRUCTIONS: **Take the list of class members' names provided by your teacher, and code the names for indexing.**

Type (or print neatly) the name of each class member at the top of each 3" x 5" card (supplied by your teacher) in proper indexing order.

Type (or print neatly) the student's address, phone number, and birthdate on the card.

File the names in correct alphabetic order, using the materials provided by your teacher, and place them in an envelope for safekeeping. Be sure that your name is on the envelope.

ACTIVITY 5: BUSINESS NAMES

Project 1

INSTRUCTIONS: **In the past, there were several authorities which established rules or policies for alphabetic filing. Association of Record Managers and Administrators, Inc., (ARMA) is now considered the main source of filing rules which will be the basis of your study. As your teacher reviews a specific rule, write it down, and give an example.**

ALPHABETIC RULES FOR ALPHABETIC FILING: BUSINESS NAMES

1.

Example:

2.

Example:

3.

Example:

4.

Example:

ACTIVITY 5 (Continued)

Project 1 (Continued)

5.

Example:

6.

Example:

7.

Example:

8.

Example:

9.

Example:

337

ACTIVITY 5 (Continued)

Project 2

INSTRUCTIONS: **Code the name listed below. Then arrange them in correct indexing order in the space provided.**

		1st	2nd	3rd	4th
1.	Morgan School Day Care				
2.	Aaron's Locksmiths				
3.	Fuller-Sheffield Hardware				
4.	San Francisco Steak House				
5.	Wilson Savings and Loan				
6.	D & P Locksmiths				
7.	The Fourth Avenue Deli				
8.	Al's Formal Wear				
9.	Mr. Vernon Mobile Homes				
10.	Bryan World Travel				
11.	Kwik-Stop Kar Wash				
12.	San Antonio Tours, Inc.				

ACTIVITY 5 (Continued)

Project 3

INSTRUCTIONS: **From the indexed names in Project 2, put the names in correct alphabetic filing order in the space provided.**

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________
6. ______________________________
7. ______________________________
8. ______________________________
9. ______________________________
10. ______________________________
11. ______________________________
12. ______________________________

ACTIVITY 5 (Continued)

Project 4

INSTRUCTIONS: Code the names listed below. Then arrange the names in correct indexing order in the space provided.

		1st	2nd	3rd	4th
1.	Tress Tique Beauty Salon				
2.	Art Mason Auto Parts				
3.	Freshe Industries, Inc.				
4.	Great American Real Estate				
5.	Harv's Repair Shop				
6.	Beggs & Woodruff				
7.	Campana & Associates				
8.	A & G Motors				
9.	Paul Harobec Auto Sales				
10.	Larry Lange Jaguar				

ACTIVITY 5 (Continued)

Project 5

INSTRUCTIONS: **From the indexed names in Project 4, put the names in correct alphabetic filing order in the spaces below.**

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________
6. ______________________________
7. ______________________________
8. ______________________________
9. ______________________________
10. ______________________________

ACTIVITY 5 (Continued)

Project 6

INSTRUCTIONS: Using the names provided in Project 3 and 5, put the names in correct alphabetic filing order

1. ______________________________

2. ______________________________

3. ______________________________

4. ______________________________

5. ______________________________

6. ______________________________

7. ______________________________

8. ______________________________

9. ______________________________

10. ______________________________

11. ______________________________

12. ______________________________

13. ______________________________

14. ______________________________

15. ______________________________

16. ______________________________

ACTIVITY 5 (Continued)

Project 6 (Continued)

17. ____________________

18. ____________________

19. ____________________

20. ____________________

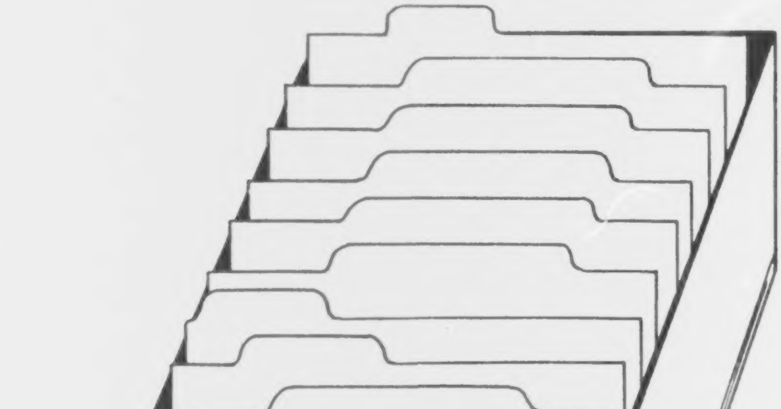
21. ____________________

22. ____________________

ACTIVITY 5 (Continued)

Project 7

INSTRUCTIONS: **From a list of business names given to you by the teacher, code and index the names, and then put the names in alphabetic order using the file drawer on this page.**



TERMINOLOGY

MODULE C: NUMERIC FILING

Alphanumeric	Data items which may contain digits, letters, or special characters.
Ascending sequence	Data are arranged in order from lowest to highest, or alphabetically from A to Z.
Chronological	Filing the most current correspondence on top of the filed stack--files arranged by date or time.
Coding	Marking units in a filing segment.
Consecutive-numeric system	A filing system that uses an ordered sequence of numerals: 1, 2, 3, etc. Also called straight numeric.
Descending sequence	Arranged in sequence from highest to lowest, or alphabetically from Z to A.
Indirect-access system	A filing system, such as numeric or subject system, in which the user must refer to an index before records can be found.
Middle-digit system	A filing system using the middle digits to classify records.
Numeric filing	Filing by number rather than filing alphabetically.
Sort	Arrange records according to a predetermined sequence.
Store	Organize (or file) records in a file according to the alphabet, subject, date, or number.
Terminal-digit system	A filing system using precisely designated numbers to classify records into groups; the final number (or terminal digit) shows where to start searching for the file.
Tickler file	A file organized by the day of the month to serve as a daily memorandum of tasks.
Transfer	The orderly movement of records from the active records file to the inactive or other files.

UNIT OVERVIEW

MODULE C: NUMERIC FILING

I. Numeric filing systems

  A. Numeric filing

    1. The system which is easiest to introduce and use.

    2. Records are arranged according to numerals instead of letters.

  B. Characteristics of a numeric filing system

    1. Main numeric file

    2. A register, accession record, or acquisition book lists all of the previously assigned file numbers.

      a. Used to prevent assigning one number to two files.

      b. Worker must consult a list of the numbers already assigned for this to be effective.

    3. Alphabetic card index serves to cross-reference numbered files.

    4. Documents are arranged in consecutive order in the miscellaneous alphabetic correspondence file

    5. Generally used for prenumbered documents and for large quantities of names.

      a. Insurance policies, checks, purchase requisitions, sales orders, contracts, bank accounts, invoices, and credit card accounts are examples of prenumbered documents.

      b. The Social Security Administration, Veterans Administration, and the state motor vehicle bureaus are examples of agencies that use numeric organization of many names.

  C. Numeric filing is called an *indirect-access system*, because an alphabetic index is needed to determine the number assigned to an individual file.

II. There are several basic types of numeric systems:

  A. Straight numeric

    1. Uses consecutively numbered folders.

2. Arranged in sequential order in the file.

B. Terminal digits are put into three groups:

1. Group one is the folder number.

2. Group two is the guide number.

3. Group three is the drawer number.

C. Middle-digit numeric:

1. Group one is the guide number.

2. Group two is the drawer number.

3. Group three is the folder number.

D. Subject-numeric combines both subject and numeric filing systems.

1. Numbers are assigned to subject headings.

2. Other variations of subject-numeric filing include:

a. Simple-numeric.

b. Decimal-numeric.

c. Duplex-numeric.

E. Alphanumeric systems combine letters and numbers, as in license plate registrations.

F. Phonetic classification systems use codes representing key letter sounds to overcome difficulties in retrieving files with names that sound alike but are spelled differently.

G. In chronological filing, records are arranged according to time sequence.

1. Sequence used is based on years, months, days, and/or other similar time divisions.

2. This system may be used as a stand-alone system or in conjunction with other filing systems.

MODULE C: NUMERIC FILING

ACTIVITY 1: TERMINOLOGY

INSTRUCTIONS: **Match the following terms with the proper definition.**

A. Numeric
B. Terminal digit
C. Alphanumeric
D. Coding
E. Indirect access
F. Store
G. Transfer
H. Ascending sequence
I. Descending sequence
J. Sort
K. Tickler file
L. Middle digit
M. Chronological
N. Consecutive numeric

______ 1. Data items which may contain digits, letter, or special characters.

______ 2. A file organized by the day of the month to serve as a daily memorandum of tasks.

______ 3. Straight numeric.

______ 4. Filing by number rather than filing alphabetically.

______ 5. The orderly movement of records from the active records file to the inactive or other files.

______ 6. Filing the most current correspondence on top of the filed stack.

______ 7. A filing system using the middle digits to classify records.

______ 8. Arranged in sequence from highest to lowest, or alphabetically from Z to A.

______ 9. The final number shows where to start searching for the file.

______ 10. Organize records in a file according to the alphabet, subject, date, or number.

______ 11. Arrange records according to a predetermined sequence.

______ 12. A filing system, such as numeric or subject system, in which the user must refer to an index before records can be found.

______ 13. Data are arranged in order from lowest to highest, or alphabetically from A to Z.

______ 14. Marking units in a filing segment.

ACTIVITY 2: CHARACTERISTICS OF A NUMERIC FILING SYSTEM

INSTRUCTIONS: **List and briefly describe the five characteristics of a numeric filing system.**

1.

2.

3.

4.

5.

ACTIVITY 3: BASIC TYPES OF NUMERIC FILING SYSTEMS

INSTRUCTIONS: **List and briefly describe the seven basic types of numeric filing systems. Give an example of each.**

1.

2.

3.

4.

5.

6.

7.

ACTIVITY 4: NUMERIC FILING RULES

Project 1

INSTRUCTIONS: **Put the following numbers into proper numeric order using the straight- or consecutive-numeric system.**

524110
502631
523909
526120
523810
504421

____

____

____

____

____

____

ACTIVITY 4 (Continued)

Project 2

INSTRUCTIONS: **Put the following numbers into proper numeric order using the middle-digit system.***

176192
152728
382161
153127
175019
152562

Example:

# to be filed	Broken into 3	Rearranged for filing	Filed
312451	31 24 51	* 24 51 31	612359
612359	61 23 59	* 23 59 61	312451

____

____

____

____

____

____

ACTIVITY 4 (Continued)

Project 3

INSTRUCTIONS: **Put the following numbers into proper numeric order using the terminal-digit system.***

431507 282675 195201

293442 263276 273120

Example:

# to be filed	Broken into 3	Rearranged for filing	Filed
312451	31 24 51	*51 24 31	312451
413060	41 30 60	*60 30 41	413060

____

____

____

____

____

____

Project 4

INSTRUCTIONS: **Using the file cards you alphabetized in Module B, Activity 4, Project 8, file the cards in numerical order following instructions from your teacher.**

SECTION II: FILING

UNIT II: ELECTRONIC FILING

UNIT OBJECTIVE:	Students will be able to identify concepts and demonstrate skills necessary for electronic filing.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Identify electronic filing terminology.
2. Apply electronic filing concepts.

FOCUS: Almost all organizations use more than one system for filing. The use of computers in the business office has resulted in more rapid and efficient systems for filing. The beginning office worker needs to be familiar with electronic filing. For this reason, this unit addresses electronic filing in detail.

TERMINOLOGY

Alphanumeric	Data items which may contain digits, letters, or special characters.
Ascending sequence	Arranged in order from lowest to highest (or alphabetically from A to Z).
Category	A class of data such as a name, date, cost, or part number (a field).
CD-ROM	A compact disk with read-only memory, which is a new kind of optical disk that can store large quantities of data, graphics, or sound.
Create	Establishing the records and fields to be used in a database.
Criteria	The rules used for selecting records from the database.
Database	A collection of data relating to a subject, organized to make information accessible for a variety of needs.
Default	The automatic value of an option if the user does not specify a choice.
Delete	To remove a record from a file.
Descending sequence	Arranged in order from highest to lowest (or alphabetically from Z to A).
Field	A subdivision of a record. An item of data within a record.
File	A set of related records stored together.
Find	See search.
Key	A field or category within a record that is used to identify, select, or sort records.
Prompt	A symbol or word to inform the user that a response is needed.
Query language	A high-level, English-like language used with a database to make requests.
Record	One or more related items of data stored as a unit.
Retrieval	Locating records which are stored in the files.
Schema	A map of the logical structure of a database.

Search(Find)	To look for all records that meet a set of criteria.
Select	To choose records from a file according to rules or criteria.
Sort	To arrange records according to a predetermined sequence.
Truncate	To drop or cut off characters in a field to make it a certain length.

UNIT OVERVIEW

I. Concepts of electronic filing

  A. Objectives of using databases

    1. **Decreasing repetitive work**--the idea is that data, once entered, need not ever be entered again. For example, if an employee's birth date is needed for several different reports by different departments within a company, each department can access the database rather than obtaining the information separately.

    2. **Increasing accuracy**--if a number is typed twenty times by twenty different people, chances are that one or more of them will type it incorrectly, particularly when large quantities of data are being manipulated. Humans are subject to many factors, such as fatigue, which increase the chances of error.

    3. **Eliminating inaccuracy**--by entering data just once into a database and verifying their accuracy immediately, almost all cases of inaccurate data can be eliminated. Of course, if the data are not verified and they are wrong, the consequences can be much more serious.

    4. **Increasing efficiency**--because the data are entered only once, and then processed at computer speeds, results are obtained much faster and with fewer intermediate steps.

  B. Advantages and disadvantages of database management systems

    1. Advantages

      a. You can add, delete, or change data without retyping paper forms or making messy corrections.

      b. If new needs arise, the data are already there.

      c. Updating of a record need only be done once.

      d. All occurrences of a record can be deleted at one time.

      e. Managed correctly, the system is reliable.

      f. Integrated files allow an overview of the user's business and improve access to data.

      g. Having the data centralized in one place allows better security.

      h. Multiple users can work with the database from different locations.

2. Disadvantages
    a. Errors, if not corrected, are perpetuated.
    b. The owner of the data can lose control over the information.
    c. Only one user can access a file (for change) at one time.
    d. Privacy can be compromised.

C. Purposes of a database
    1. Add or delete data within a file.
    2. Search a file for certain data.
    3. Update or change data in a file.
    4. Sort data into some order.
    5. Print all or part of a file.

D. **Elements of a database**--every database is built on three types of related components:
    1. The **field**--a piece of information in a record, such as name, phone, etc.
    2. The **record**--a group of fields for one individual.
    3. The **file**--a group of records with some element in common.

E. **Applications**--typical database management applications include:
    1. **Accounting**--payroll, invoicing, general ledger, accounts payable, and accounts receivable.
    2. **Agriculture**--farm accounting, cattle management, dairy management, and acreage management.
    3. **Construction**--estimating, job costing, bid management, and project management.
    4. **Financial**--inventory control, lease management, financial reports, cash management, banking, department store billing, and credit card maintenance.
    5. **Medical**--dental and doctor office, hospital administration, nursing home management, and pharmacy management.
    6. **Real estate**--property management, mobile park management, property listings, and escrow accounting.

7. **Sports**--baseball, football and basketball statistics programs, racehorse handicaps, and drafting.

8. **Miscellaneous**--personnel management systems, travel agency management, food service management, scientific computations, and many more applications.

II. Practical applications of electronic filing

A. Capabilities of databases

1. There are many more database capabilities than merely entering data, storing it, and then printing it out later.

2. The programs called Database Management Systems (DBMS) provide numerous functions and ways to manipulate data.

a. Add or enter new records.

(1) This function is used to key data into a file through entries to a format or screen display.

(2) Some databases do not permit changing the structure once it has been established and data entered, but all permit adding more records. All databases permit adding new records.

(3) Appending data to a file is one of the most frequent activities.

b. Update or edit an existing record.

(1) This function is used to change records that already are a part of a file (a new address or phone number, for example). The new information is entered and replaces the old.

(2) New information can be entered into an empty field.

(3) Information can be removed from a field and leave the field empty.

c. Delete records.

(1) Obsolete records can be removed from the database.

(2) When the command is given to remove a record, its space is made available for new data and its record number reassigned.

d. Sort or arrange records.

(1) This function arranges records within a single file in an order or sequence.

(2) Once stored, the data that are entered usually remain in the same order.

(3) For a report, the data to be printed can be organized in any desired order, sequenced, and grouped by one or more fields (alphabetically within a division, for example).

e. Search or index records.

(1) This function creates an index used to find records within a file.

(2) Using whatever keys are available, the database can be searched to find one or all occurrences of specified data.

(3) In this way, for example, one could find if there are persons who live in a certain ZIP Code, or if there is merchandise with an expiration date before the current month.

f. **Query/or inquiry**--if a particular item of information is needed, such as the balance due on a certain account, the key field (the account number) could be entered, and the data relevant to that account displayed on the screen.

g. Select.

(1) This function copies all or part of records in the file into a working file, leaving the existing file undisturbed.

(2) The database may contain many thousands of records, but if the user is only interested in those for people who have type O blood and are between ages 18 and 65, for example, he/she can select for those criteria without having to read every record.

h. **Report**--whatever information is needed, after being selected and rearranged to suit the purpose, can be formatted into a report to send to a printer.

B. Using a database

1. Entering/manipulating data

a. Entry is accomplished one record at a time, using an input form.

(1) Some software saves each record on a disk as soon as it is entered.

(2) Other programs do not save any records until the user terminates the entry session. Any field of a record can be edited while the record remains on the screen.

b. The design of the input form or screen determines what data can be entered into a field. Some fields can be limited to letters only (alpha fields), some can be limited to numbers only (numeric fields), and some can accept both letters and numbers (alphanumeric fields). If a field has been identified as a date, then characters which cannot be part of a date will not be accepted.

(1) Error traps are built in. If the user attempts to type invalid data, a message will be displayed.

(2) This feature cannot catch all types of errors but can catch errors where the data is out of range or of the wrong type.

(3) Data will not be accepted if the entries are longer than the fields. Most programs display an error message, others will truncate, or cut it off.

c. Once data have been entered, most databases will not allow changing the screen input form. If changes must be made (for example, to expand a field), a new database can be created, and the records copied from the old database to the new.

d. Updating files

(1) The editing function is used to change records that already are part of a file. The commands to do this vary among software programs.

(2) Obsolete records can be removed from the database by deleting them.

2. **Searches**--searching for specific records is accomplished through commands such as Find, Seek, or Locate. They may be used for retrieval or query of data.

a. The basic search procedure is to list the criteria that will identify the desired record(s) as part of the command. Three or even more criteria may be listed.

(1) A search criterion can be exact (Name = "Mickey Mouse"), or a range (ZIP Code = 75000).

(2) If there are multiple criteria, they are joined with the logical operators, AND, OR, or NOT.

b. The search can stop with the first record that meets the criteria or continue searching for all occurrences.

c. Generally, a relational expression is used in a search.

(1) A relational expression is an expression to state the condition on which a record is to be retrieved.

(2) Relational operators include: equal to (=), not equal to (≠), greater than (>), less than (<), greater than or equal to (≥), and less than or equal to (≤).

3. **Creating report summaries**--output forms are used for summaries.

a. Any number of output forms can be designed for the same database.

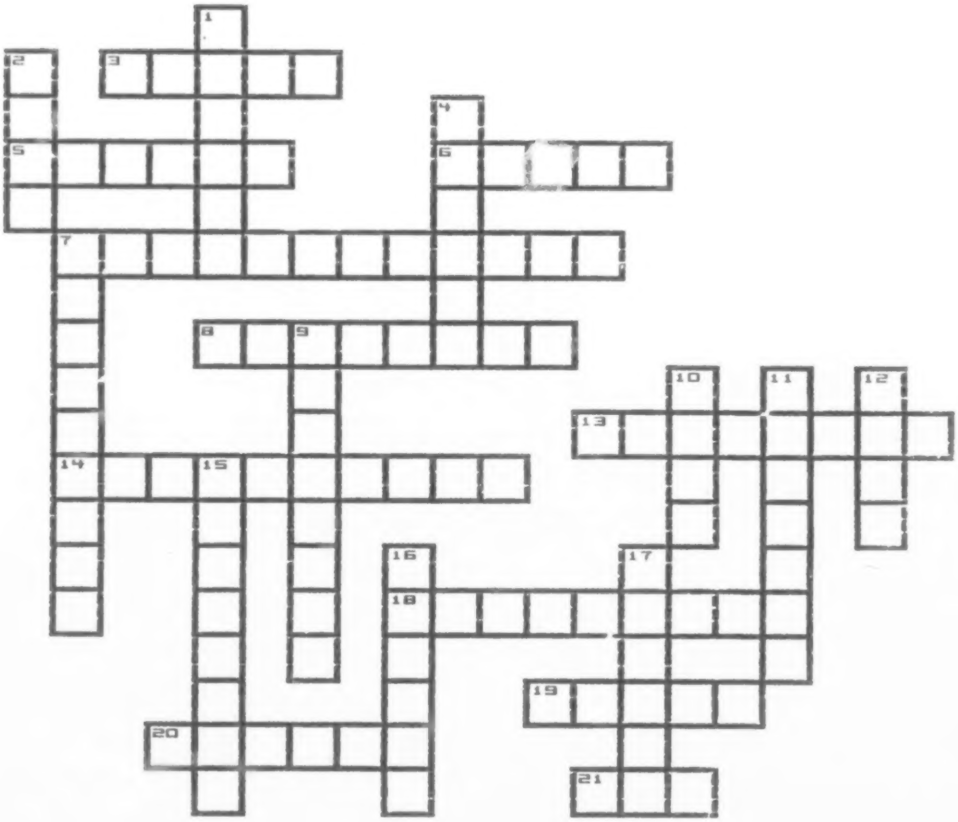
(1) They are stored by name on the disk.

(2) If a new report is requested, a new report can be designed.

b. Only the desired fields need be included on the form. The data records for the report are then selected by searching, unless all records are to be printed.

c. **Printing--**Select Print from the menu. Printer options may be selected earlier and saved with the form. Enter the name of the file to be printed, mount the correct forms on the printer, adjus the top of the form, and enter the command to commence printing.

ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE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ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE CLUES

ACROSS

3. A high-level, English-like language used with a database to make requests.

5. One or more related items of data sorted as a unit.

6. A compact disk with read-only memory, which is a new kind of optical disk that can store large quantities of data, graphics, or sound.

7. Data items which may contain digits, letters, or special characters.

8. A collection of data relating to a subject, organized to make information accessible for a variety of needs.

13. The rules used for selecting records from the database.

14. Sequence arranged in order from highest to lowest.

18. Locating records which are stored in the files.

19. A subdivision of a record.

20. A symbol or word to inform the user that a response is needed.

21. A field or category within a record that is used to identify, select, or sort records.

DOWN

1. To look for all records that meet a set of criteria.

2. To arrange records according to a predetermined sequence.

4. A map of the logical structure of a database.

7. Sequence arranged in order from lowest to highest.

9. To drop or cut off characters in a field to make it a certain length.

10. A set of related records stored together.

11. The automatic value of an option if the user does not specify a choice.

12. Another name for search.

15. A class of data such as a name, date, cost, or part number.

16. Establishing the records and fields to be used in a database.

17. To remove a record from a file.

ACTIVITY 2: CONCEPTS OF USING DATABASES

Project 1

INSTRUCTIONS: **List and discuss each of the objectives for which databases were designed.**

1.

2.

3.

4.

ACTIVITY 2 (Continued)

Project 2

INSTRUCTIONS: List and explain four capabilities of database management software.

1.

2.

3.

4.

ACTIVITY 2 (Continued)

Project 3

INSTRUCTIONS: **Using the cards that you prepared for your alphabetic and numeric filing unit, create a record for each card, using the database software provided by your teacher. Each record should include the following fields. When this is completed:**

1. **Print an alphabetical list of the data entered.**
2. Sort by birthdays and print a list.

LAST NAME
FIRST NAME
ADDRESS
CITY
STATE
ZIP
AREA CODE
PHONE NUMBER
BIRTHDAY

SECTION III

OPERATING OFFICE MACHINES

ESSENTIAL ELEMENTS

75.87(d)(3)(A)(B)(C)(D)(E)(F)

75.87(m)(3)(A)(B)(C)(D)(E)

(d)

3. Concepts and skills related to the operation of office equipment.

The student shall be provided opportunities to:

(A) Identify the procedures and equipment used in completing layouts for reprographics;

(B) Identify the procedures used in operating reprographic equipment;

(C) Demonstrate the ability to prepare masters and to operate the offset press;

(D) Demonstrate the ability to use desktop publishing features;

(E) Demonstrate the ability to solve mathematical problems using the touch method on the electronic calculator/computer keypad; and

(F) Demonstrate the ability to enter and retrieve data on a microcomputer.

(m)

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(C) Demonstrate the ability to use desktop publishing features;

(D) Demonstrate the ability to solve mathematical problems using the touch method on the electronic calculator/computer keypad; and

(E) Demonstrate the ability to enter and retrieve data on a microcomputer.

SUGGESTED UNIT LESSON PLAN

SECTION III: OPERATING OFFICE MACHINES

UNIT I: REPROGRAPHICS

ESSENTIAL ELEMENTS: 75.87 (d)/(m)(3)(A)

ALLOCATED TIME: 10-20 Hours

UNIT OBJECTIVE: The students will be able to apply the concepts and skills related to layout and design.

MODULE A: LAYOUT AND DESIGN

STUDENT COMPETENCIES: The student shall be provided opportunities to:

1. Identify terminology related to layout and design.
2. List tools, supplies, and equipment used in preparing a layout.
3. Convert between scales or line gauge measuring systems.
4. Identify copy layout preparation considerations.
5. List procedures to use when making a layout.
6. Match type and letter styles to message of layout.
7. Identify paper types and their uses.
8. Prepare a layout including:
    a. Thumbnail sketches.
    b. Rough draft.
    c. Comprehensive layout.

FOCUS: The ability to produce quality layout and design products is essential in the printing industry or in an office setting.

DOMAINS:	Activities and competency tests have been designed to provide learning experiences utilizing the cognitive, psychomotor, or affective domains. Activities and competency tests are coded on the Activity and Competency Test Matrices.
BASIC SKILLS:	Activities and competency tests have been designed to reinforce the basic skills of reading, writing, and/or mathematics. Activities and competency tests have been coded on the Activity and Competency Test Matrices.

CONTENT OUTLINE

I. Tools, supplies, and equipment
    A. Tools
    B. Supplies
    C. Equipment

II. Measurement
    A. Procedures for measuring
    B. Units of measurement
    C. Relationships of points, picas, and inches
    D. Measuring type
    E. Printer's line gauge
    F. Points and picas used to measure

III. Copy preparation considerations
    A. Type of equipment to make multiple copies
    B. Type of paper
    C. Color of ink
    D. Type of letter style and size used
    E. Photographs and illustrations
    F. Effect or tone displayed
    G. White space and simplicity
    H. Balance to display

IV. Layout procedures
    A. Purposes of a layout
    B. Stages of developing a layout

SUGGESTED TEACHER ACTIVITIES

General Teacher Preparation

1. Preview unit.
2. Review unit objectives.
3. Make instructional analysis.
4. Assess student learning needs.
5. Decide on lesson domain: cognitive, psychomotor, or affective domain.
6. Select instructional materials based on instructional analysis and student learning needs.
7. Select instructional strategies based on lesson content and student learning needs.
8. Prepare lesson plans from the unit lesson plan.
9. Prepare additional instructional material.
10. Reserve necessary media and equipment.

Teacher Presentation

1. Present student objectives.
2. Establish rapport with students.
3. Review lesson objectives with students.
4. Relate lesson to prior or future learning.
5. When appropriate, encourage student interaction through questioning, discussions, or some other strategy.
6. Emphasize the value/importance of the unit or activity.
7. Allow time for closure of a lesson.

Reteach Activities

1. Identify area(s) of weakness from results of evaluation.
2. Select unit activities not previously used.
3. Use additional resources and/or create materials based on student learning needs.
4. Use a different teaching strategy in reteaching.
5. Retest.

Specific Teaching Suggestions

1. Make a bulletin board demonstrating layouts, type styles, clip art, and tools.
2. Invite a layout artist from a local related company to speak to the class.
3. Team teach with the art teacher on layout.
4. Assign students to bring examples of layout to class for discussion of paper and type style matching message.
5. Invite a journalism teacher to speak to your class, and show procedures from the beginning to the final copy of the school newspaper.
6. Review the step-by-step method of preparing a layout.
7. Collect a file of different types of paper for layout choices.
8. Assemble tools, supplies, and equipment needed for activities.
9. Assemble the curriculum guide, telephone book yellow pages for ads, copies of school newspapers as examples, copies of local newspaper for examples, word-division books, dictionaries, and books of poetry from library to give ideas for original poems. Remind students of copyright laws, and discuss how to prepare original layout materials. Rewrite instructions if necessary to adjust for specific tools, supplies, and equipment to be used, and rewrite grade sheet to reflect any change.

GRADE SHEET

1. Thumbnail sketches ________
2. Rough draft ________
3. Comprehensive layout ________
4. Offset copy - 1 page ________
5. 6 items _____ _____ _____ _____ _____ _____ ________
6. Originality ________
7. Timeless ________
8. 8 1/2" X 14" paper ________
9. 2" margin at top for heading ________
10. 1/2" margins at other edges ________
11. 3 columns, width of single 2 1/2", double 5" ________
12. Illustrations relate to ad, article, story ________
13. Lines will divide columns, (may use press-on tape) ________
14. Strip printer heading ________
15. Total appearance of page ________
16. Proofread, errors corrected ________
17. Quality of offset printed page ________
18. Pressure-sensitive letter titles ________
19. Names of others used only with written permission dated, signed, turned in prior to printing ________
20. Consistent work habits ________
21. Each item typed ________

TOTAL GRADE ________

STUDENT'S NAME ________________________________

ACTIVITY MATRIX

Activities	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
1	X			X		
2 Project 1	X				X	
Project 2	X				X	
Project 3	X				X	
3 Project 1	X	X		X	X	
Project 2	X			X		
Project 3	X	X			X	
Project 4	X	X		X		
Project 5	X	X		X		
Project 6	X	X			X	
Project 7	X	X		X	X	
Project 8	X	X		X		
Project 9	X	X		X		
Project 10	X	X		X		
4 Project 1	X			X		
Project 2	X			X		
Project 3	X	X		X		
5 Project 1	X				X	
Project 2	X				X	
6	X	X		X		
7 Project 1	X	X		X		
Project 2	X			X		
Project 3	X			X		

ACTIVITY MATRIX

Activities	**Domains**			**Basic Skills**		
	Cognitive	**Psycho-motor**	**Affective**	**Reading**	**Writing**	**Math**
8 Project 1	X	X		X	X	
Project 2	X	X		X	X	

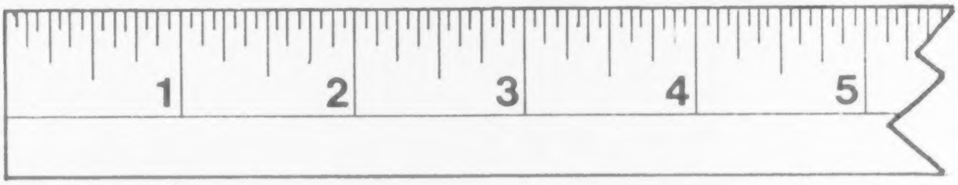
COMPETENCY TEST MATRIX

Parts		Domains			Basic Skills		
		Cognitive	Psycho-motor	Affective	Reading	Writing	Math
I	Project 1	X			X		
	Project 2	X			X		
II		X			X		
III	Project 1	X			X		
	Project 2	X			X		
	Project 3	X	X		X		
	Project 4	X	X		X		
	Project 5	X	X		X		
	Project 6	X	X		X		
IV	Project 1	X			X		
	Project 2	X			X		
	Project 3	X			X		
	Project 4	X			X		
V	Project 1	X			X		
	Project 2	X			X		
	Project 3	X			X		
VI	Project 1	X			X		
	Project 2	X			X		
VII	Project 1	X			X		
	Project 2	X				X	
	Project 3	X				X	
VIII	Project 1	X	X			X	
	Project 2	X	X			X	

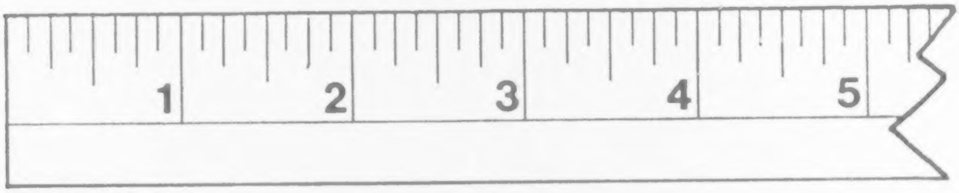
COMPETENCY TEST MATRIX

Parts	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
VIII (con't)						
Project 3	X	X		X	X	
Project 4	X	X		X	X	

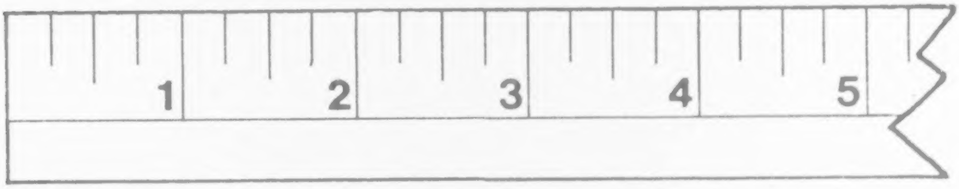
DIFFERENT SCALE GRADUATIONS



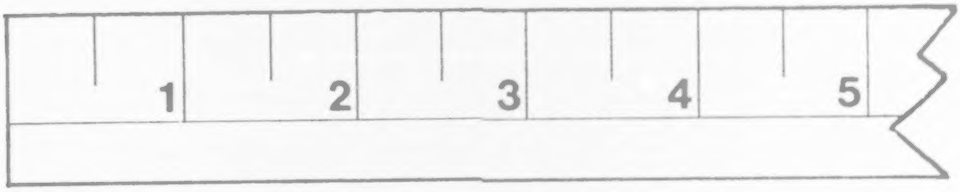
SIXTEENTHS



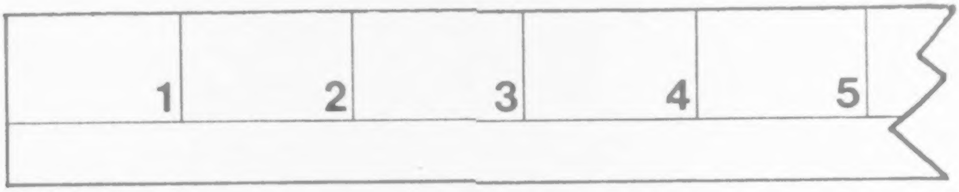
EIGHTHS



FOURTHS



HALVES

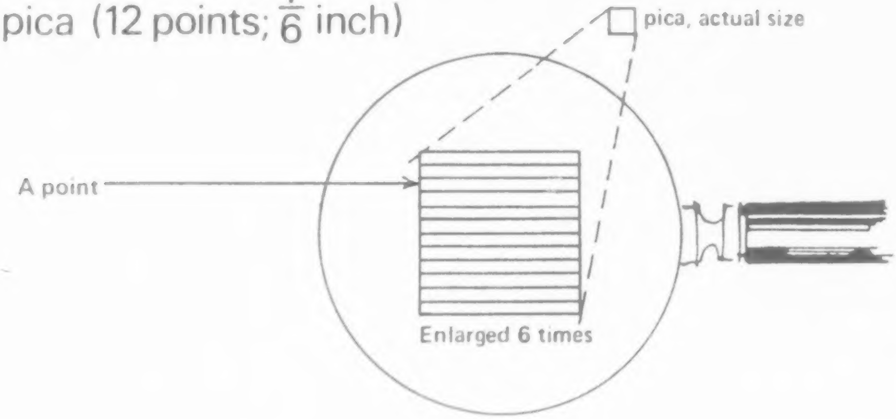


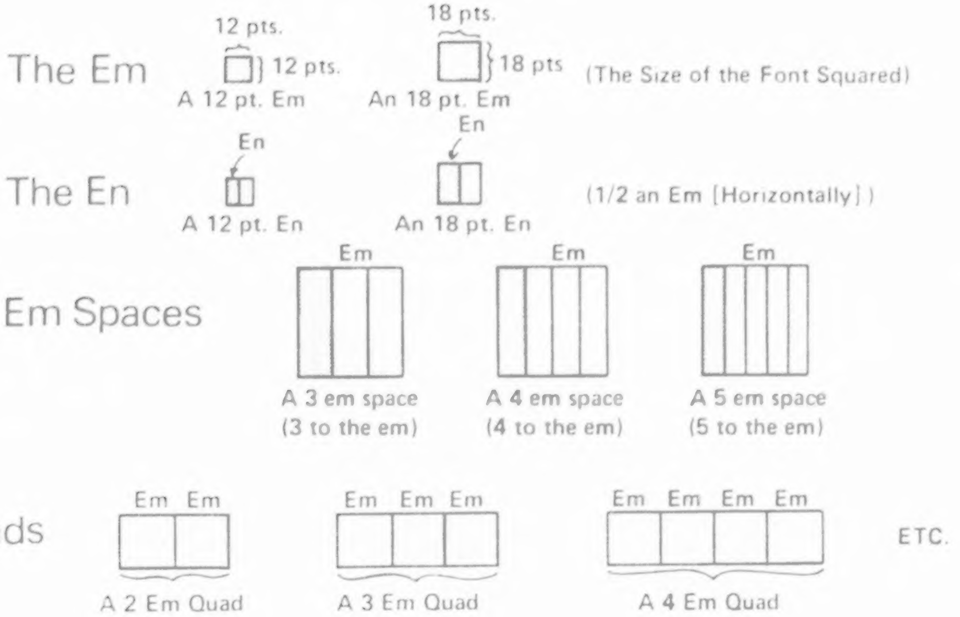
INCHES

UNITS OF MEASUREMENT

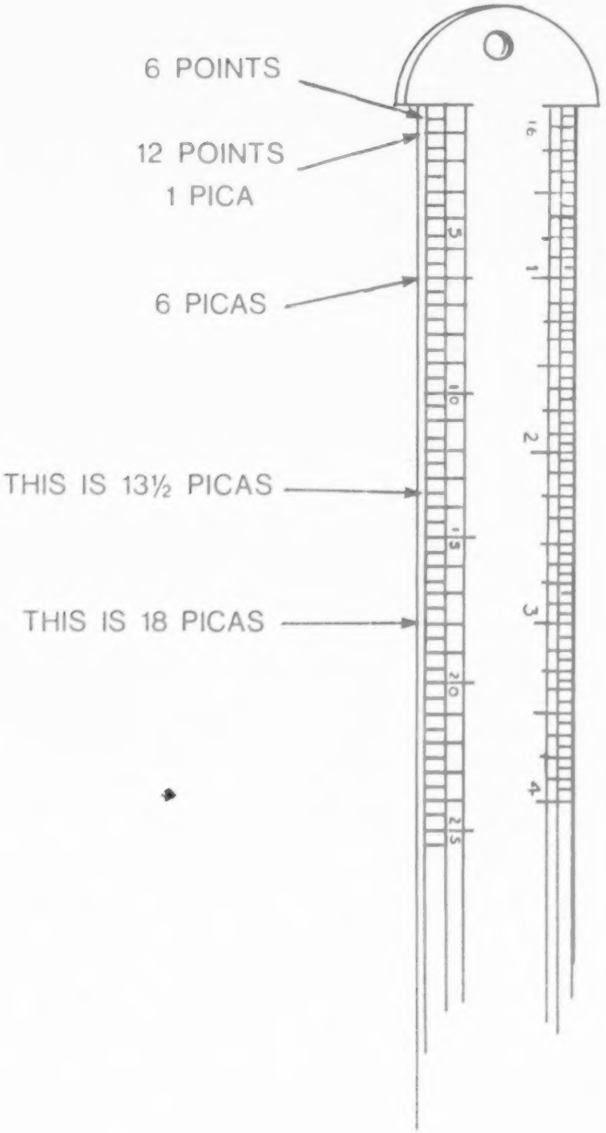
The point (approx. $\frac{1}{72}$ inch)

The pica (12 points; $\frac{1}{6}$ inch)


pica, actual size
A point
Enlarged 6 times

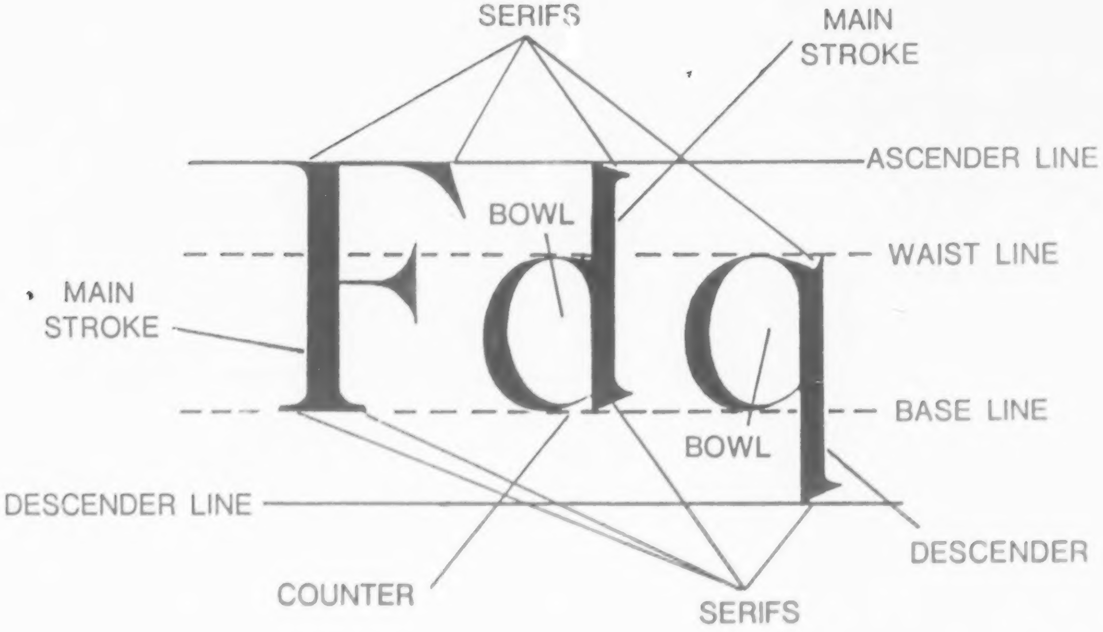

The Em
12 pts.
12 pts.
A 12 pt. Em
18 pts.
18 pts
An 18 pt. Em
(The Size of the Font Squared)
The En
En
A 12 pt. En
En
An 18 pt. En
(1/2 an Em [Horizontally])
Em Spaces
Em
A 3 em space
(3 to the em)
Em
A 4 em space
(4 to the em)
Em
A 5 em space
(5 to the em)
Quads
Em Em
A 2 Em Quad
Em Em Em
A 3 Em Quad
Em Em Em Em
A 4 Em Quad
ETC.

POINT SYSTEM SCALE


6 POINTS
12 POINTS
1 PICA
6 PICAS
THIS IS 13½ PICAS
THIS IS 18 PICAS
5
10
15
20
25
16
1
2
3
4

72 POINTS = 1 INCH

PARTS OF A TYPE CHARACTER


SERIFS
MAIN STROKE
ASCENDER LINE
BOWL
WAIST LINE
MAIN STROKE
Fdq
BASE LINE
BOWL
DESCENDER LINE
DESCENDER
COUNTER
SERIFS

DIFFERENT TONES

Prescriptions Fulfilled

Create a whole new image . . . right before your eyes! Select from the largest collection of high quality, high fashion eyewear you've ever seen anywhere. Major credit cards accepted.

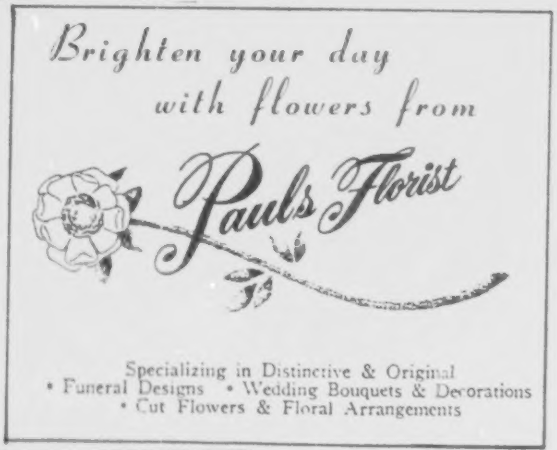
Extraordinary Eyewear — Optical Delights

FORMAL

Puffy®
mufflers
brakes–shocks

Once you install a Puffy muffler you never pay again.

STRONG

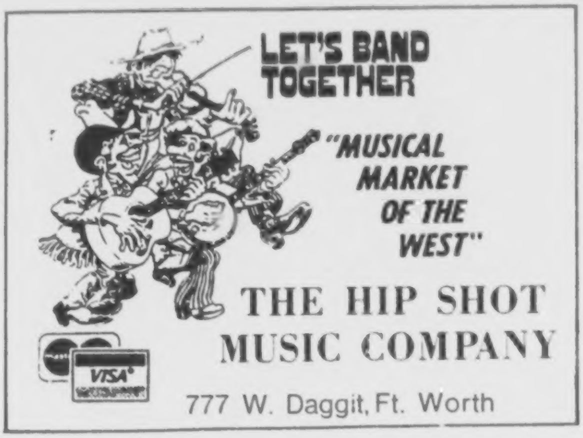


Brighten your day with flowers from

Pauls Florist

Specializing in Distinctive & Original
• Funeral Designs • Wedding Bouquets & Decorations
• Cut Flowers & Floral Arrangements

LIGHT AND AIRY



LET'S BAND TOGETHER

"MUSICAL MARKET OF THE WEST"

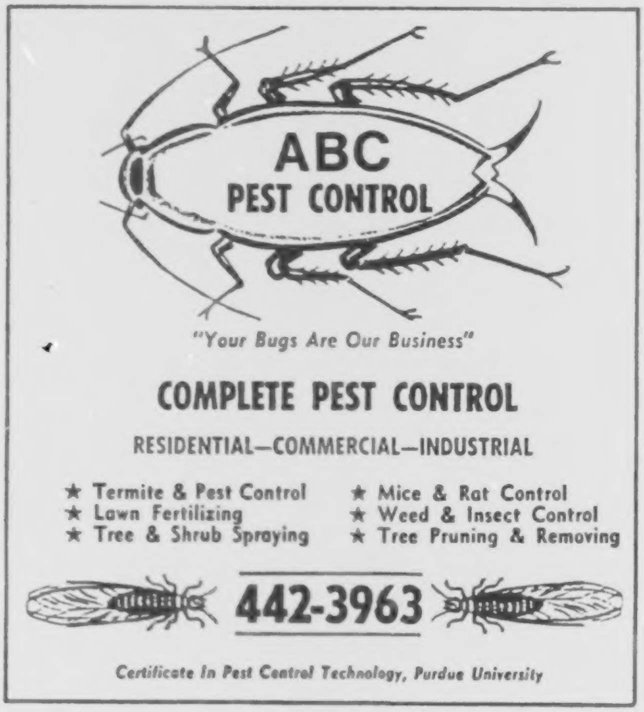
THE HIP SHOT MUSIC COMPANY

777 W. Daggit, Ft. Worth

INFORMAL

TYPES OF BALANCE

FORMAL



ABC
PEST CONTROL

"Your Bugs Are Our Business"

COMPLETE PEST CONTROL

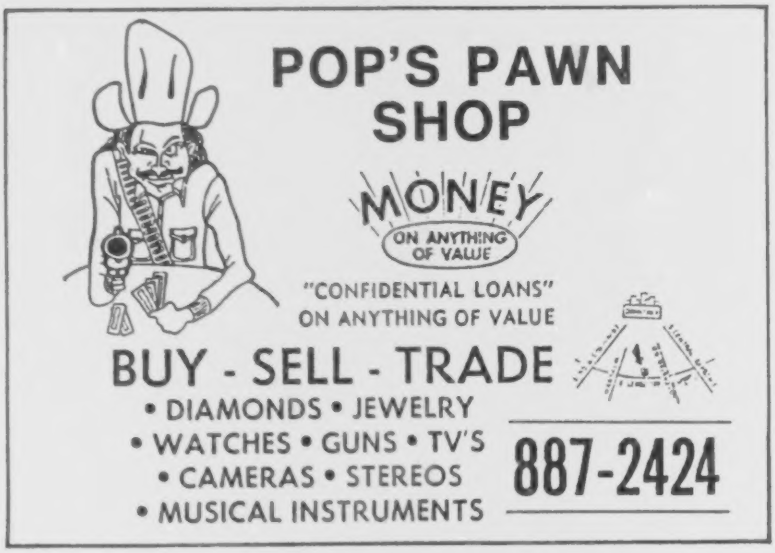
RESIDENTIAL—COMMERCIAL—INDUSTRIAL

- ★ Termite & Pest Control
- ★ Lawn Fertilizing
- ★ Tree & Shrub Spraying
- ★ Mice & Rat Control
- ★ Weed & Insect Control
- ★ Tree Pruning & Removing

442-3963

Certificate In Pest Control Technology, Purdue University

INFORMAL



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MONEY
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• DIAMONDS • JEWELRY
• WATCHES • GUNS • TV'S
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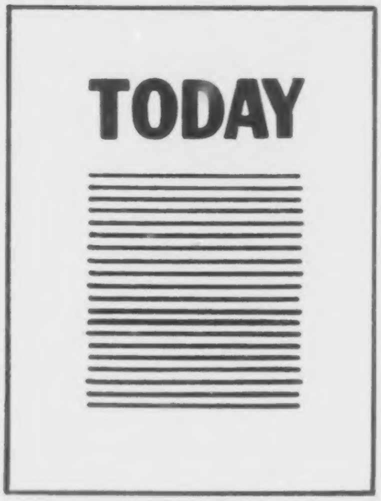
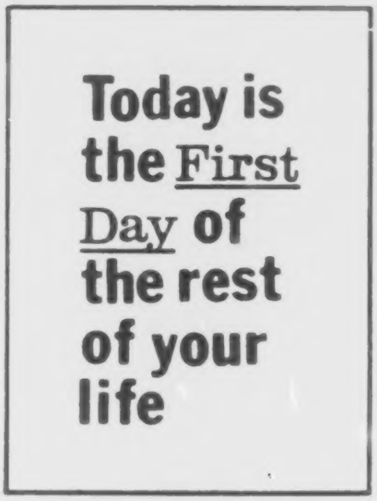
• MUSICAL INSTRUMENTS

887-2424

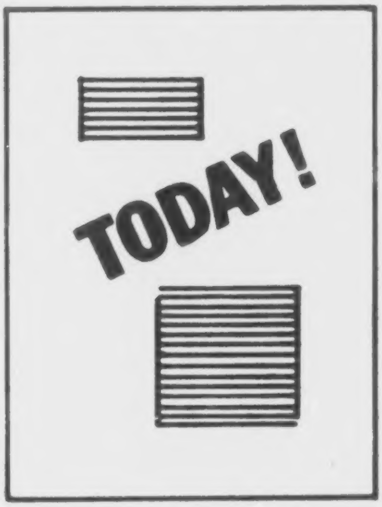
METHODS USED TO ACHIEVE EMPHASIS



Emphasis by Type, Size and Weight


Today is the First Day of the rest of your life

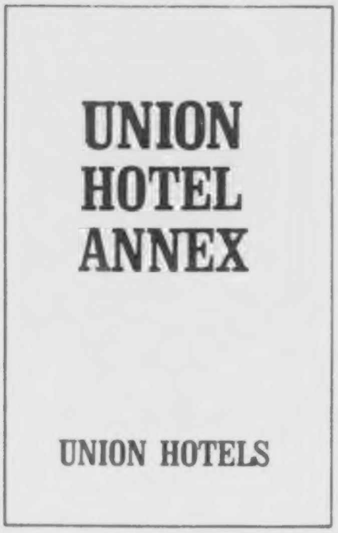
Emphasis by Use of Contrasting Type



Emphasis by Arrangement

TM-7

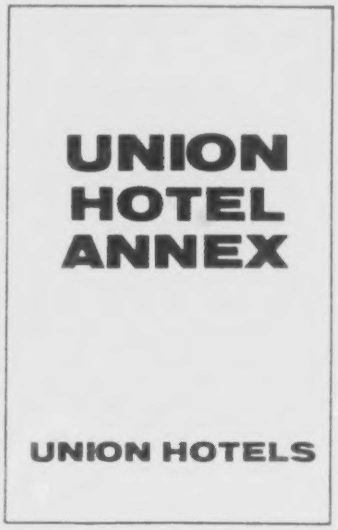
TYPES OF GOOD AND POOR SHAPE HARMONY



UNION
HOTEL
ANNEX

UNION HOTELS

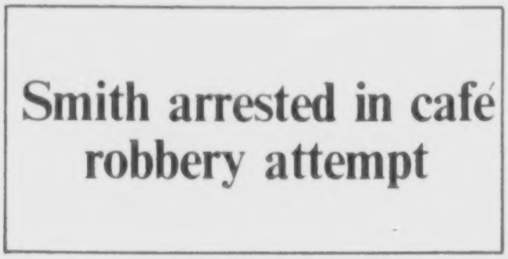
1. Good Shape Harmony. Type is set into a shape similar to shape of page. The condensed type harmonizes with style of paper.



UNION
HOTEL
ANNEX

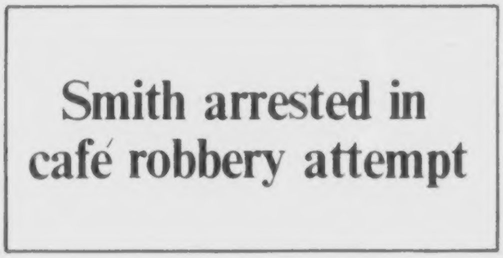
UNION HOTELS

2. Poor Shape Harmony. Type groups are not the same shape as shape of page.



Smith arrested in café
robbery attempt

3. Poor Split of Line.

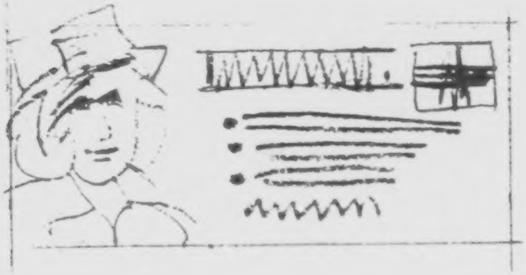


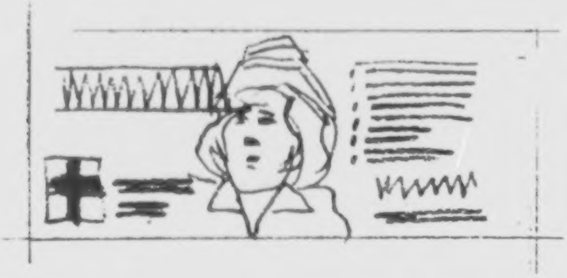
Smith arrested in
café robbery attempt

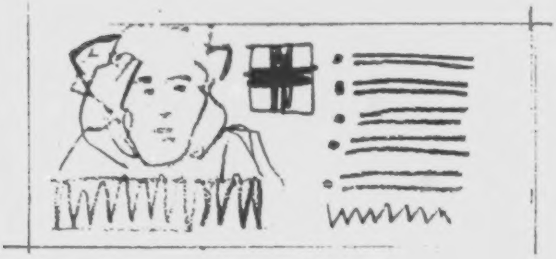
4. Good Split of Line.

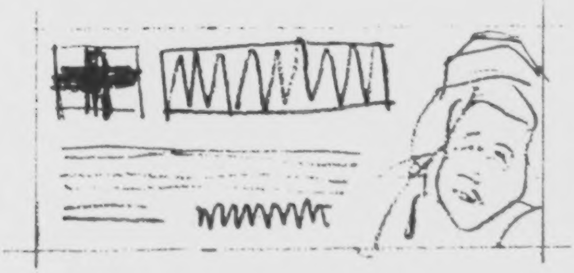
TM-8

THUMBNAIL SKETCHES

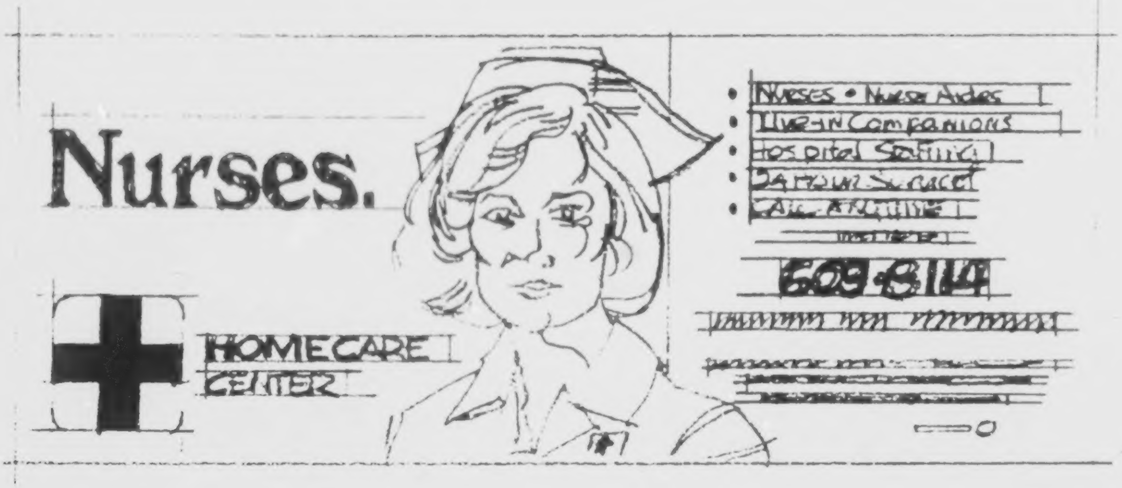








ROUGH DRAFT LAYOUT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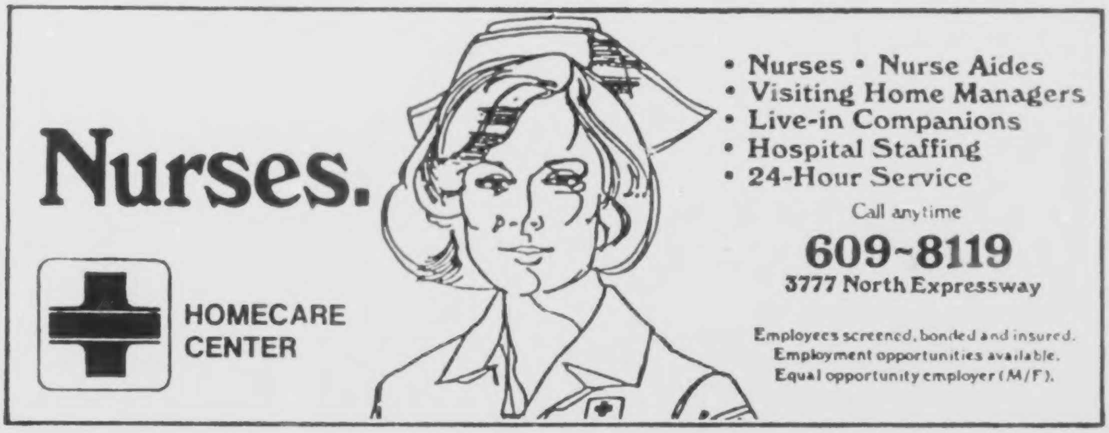
COMPREHENSIVE LAYOUT



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Employment opportunities available.
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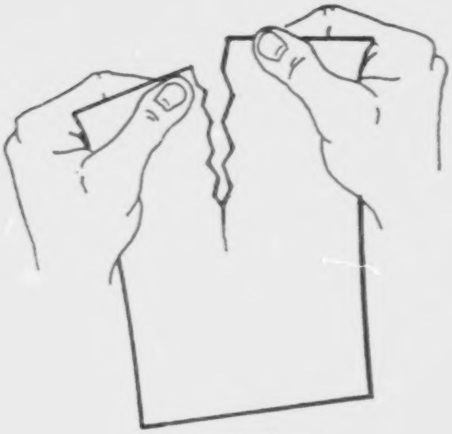
LETTER STYLES

Italic	*abcdefghijklmnopqrstuvwxyz*	*ABCDEFGHIJKLMNOPQRSTU*
Script	abcdefghijklmnopqrstuvwxyz	ABCDEFGHIJKLMNOPQRSTU
Adjutant	abcdefghijklmnopqrstuvwxyz	ABCDEFGHIJKLMNOPQRSTU
Orator	ABCDGHIJKMNOPQRUVWXYZ	ABCDEFGHIKLPQRSUVWX
Courier	abcdefghijklmnopqruvwxyz	ABCDEFGHIKLPQRS
Prestige	abcdefghijklmnopqrstuvwxyz	ABCDEFGHIJKLMNOPQRSTU
Gothic	abcdefghijklmnopqrstuvwxyz	ABCDEFGHIJKLMNOPQRSTU

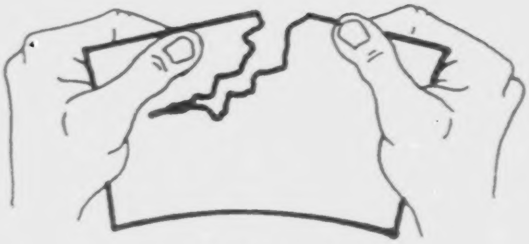
GOTHIC	**ABCDEFGHIJKLMN**
ROMAN	**ABCDEFGHIJKL**
SCRIPT	*ABCDEFG*

STYLES OF TYPE

Bodoni Book ABCDEFGHIJKLMNOPQRSTU 12	Roman
Caledonia ABCDEFGHIJKLMN 12	
Cooper Old Style ABCDEFGHIJKLM 12	
Clarendon Bd Ex 12	Square Serif
Karnak Black Condensed ABCDEFGHIJKL 12	
Stymie Medium ABCDEFGHIJKLM 12	
Bank Script ABCDEFG 12	Cursive and Script
Stradivarius ABCDEFGHI 12	
Liberty ABCDEFGHI 12	
Helvetica Bld Ext ABCDEFGH 12	Gothic or Sans Serif
Impact ABCDEFGHIJJKLMNOPQR 12	
Standard Extra Lt Ext ABCDEF 12	
Old English ABCDEFGHIJKLMNO 12	Text Letters
American Text ABCDEFGHIJKLMNOPQR 12	
Wedding Text ABCDEFGHIJKLMNOPQ 12	
Charleston ABCDEFGHIJKLMN 12	Novelty and Others
FONTANESI ABC 12	
GRAPHIQUE ABCDEFGHIJKLMNOPQRSTUV 12	
THUND AB 12	
STENCIL ABCDEFG 12	

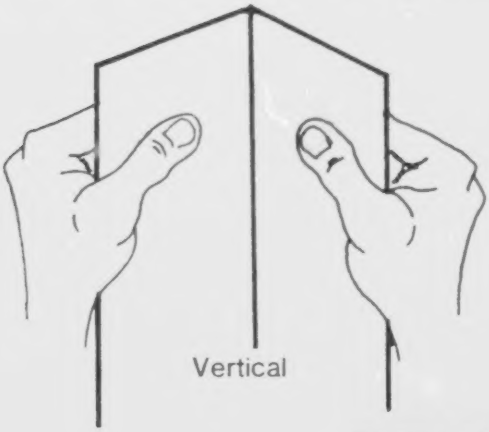


Vertical

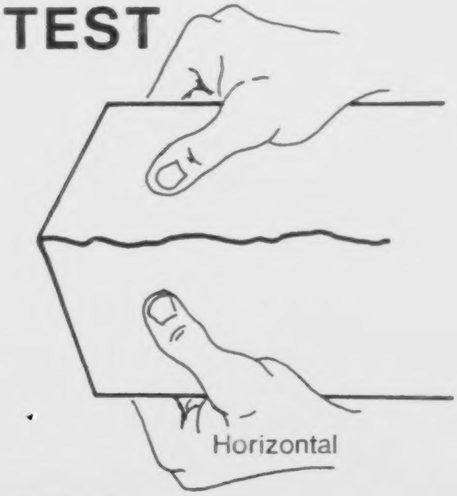


Horizontal

FOLD TEST

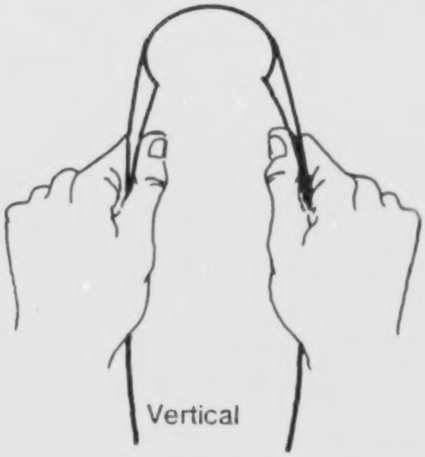


Vertical

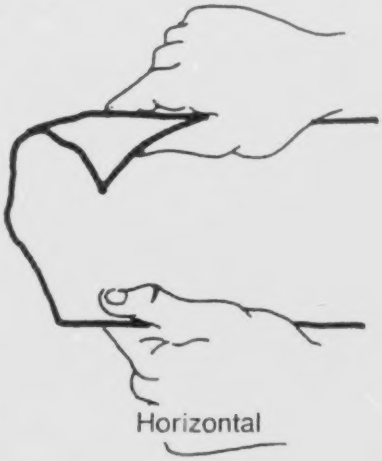


Horizontal

BEND TEST



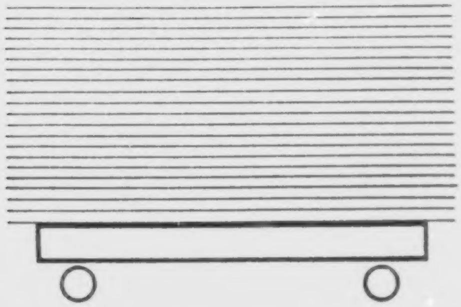
Vertical



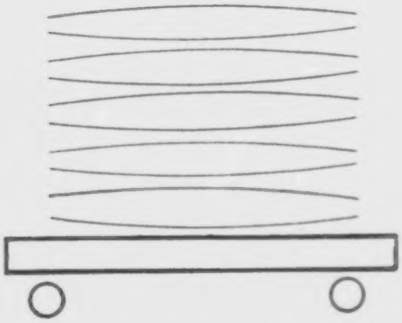
Horizontal

TM-14

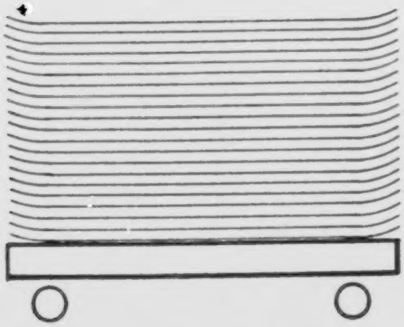
PAPER MOISTURE AND RELATIVE HUMIDITY



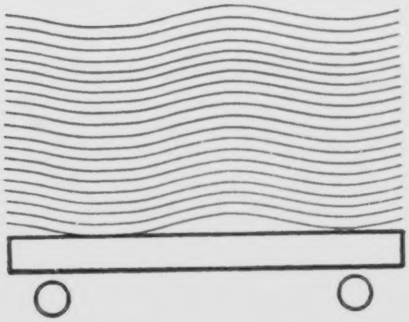
Stretching



Shrinking



Curling



Wavy edges

COMPETENCY TEST

PART I: TERMINOLOGY

Project 1

NSTRUCTIONS: Match the following terms with their definitions.

A. Line of golden proportion
B. Leading
C. Light Table
D. Spacing
E. Layout
F. Rough draft
G. Comprehensive layout
H. Balance
I. Centering point
J. Point
K. Thumbnail sketch
L. CVI-center of visual impact
M. Pica
N. Fitness
O. Kern, kerned type
P. Tone
Q. Pressure-sensitive letters
R. Printer's line gauge

_______ 1. A layout drawn to actual size with the fine points not included.

_______ 2. Arranging the characters on a page in a pleasing way.

_______ 3. A unit of measure for sizing printer's type; there are 72 points to 1 inch or 12 points to 1 pica.

_______ 4. A glass-top table with a light under the glass used for lining up letters and stripping negatives.

_______ 5. Matching the paper and type to the message being printed.

_______ 6. Above center on a page.

_______ 7. The beginning ideas of layouts done on a small scale to choose the best arrangement.

_______ 8. The layout in final camera-ready copy (or ready for copies to be made if camera is not used).

_______ 9. A unit of measure for sizing printer's type; there are 6 picas to 1 inch.

_______ 10. Spacing between letters.

_______ 11. Center of visual impact, or focal point of the page.

_______ 12. A scale to find the center of the paper.

PART I (Continued)

Project 1 (Continued)

_______ 13. A ruler showing inches, points, and picas.

_______ 14. The part of the letter face that overhangs the letter body.

_______ 15. Arranging words or letters in proper intervals.

_______ 16. Preprinted letters on a waxed surface that can be transferred to another paper.

_______ 17. A layout drawn to actual size with the fine points not included.

_______ 18. Relating the style of type to the message.

PART I (Continued)

Project 2

INSTRUCTIONS: Match the following terms to their correct definition by placing the correct letter in the space provided.

A. Measurement
B. Inch
C. Foot
D. Yard
E. Quarter
F. Eighth
G. Sixteenth
H. Half
I. Whole number
J. Graduation
K. Base line
L. Ascender
M. Body size
N. Descender
O. Em
P. En
Q. Line gauge
R. Pica
S. Point
T. Serif
U. Dimension

_______ 1. 1/4 inch.
_______ 2. 1/16 inch.
_______ 3. 1/8 inch.
_______ 4. 1/2 inch.
_______ 5. 3.
_______ 6. 12 inches.
_______ 7. Finding the size of an object.
_______ 8. 1/12 foot.
_______ 9. 3 feet, or 36 inches.
_______ 10. The mark on a measuring tool indicating a certain size or amount.
_______ 11. Measurement in length, width, height, or distance around.
_______ 12. A scale used by a printer, showing both inches and picas.
_______ 13. The line of writing on which the main part of the letters rest.
_______ 14. The part of a letter below the base line.
_______ 15. The part of a letter above the height of a lowercase x.
_______ 16. Measurement from bottom of descender to top of ascender size.
_______ 17. The square of a given type size.
_______ 18. One-half the width of the square of a given type.
_______ 19. A unit of measure for sizing printer's type; 72 to 1 inch or 12 to 1 pica.
_______ 20. A unit of measure for sizing printers type; there are 6 to 1 inch.
_______ 21. A light line or stroke coming from the main stroke in a letter.

PART II: TOOLS, SUPPLIES, AND EQUIPMENT

INSTRUCTIONS: Using a T for tool, S for supplies, and an E for equipment, classify each of the following items.

_______ 1. Ruler
_______ 2. Typewriter
_______ 3. Nonreproducing pencil
_______ 4. Burnisher
_______ 5. Printer's line gauge
_______ 6. Waxer
_______ 7. Clip art
_______ 8. Paper stock
_______ 9. X-acto knife
_______ 10. Computer
_______ 11. Clear tape
_______ 12. Masking tape
_______ 13. Grids
_______ 14. Triangle
_______ 15. Eraser
_______ 16. Rubber cement or wax
_______ 17. White-out
_______ 18. Light table
_______ 19. T square
_______ 20. Pencil
_______ 21. Pressure-sensitive letters
_______ 22. Template
_______ 23. Strip printer

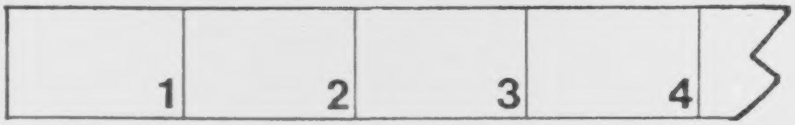
PART III: MEASURING

Project 1

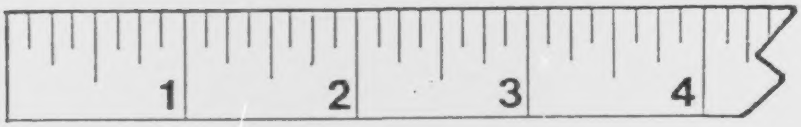
INSTRUCTIONS: Indicate the scale graduation of each scale.

1. ______________
2. ______________
3. ______________
4. ______________
5. ______________

1.



2.



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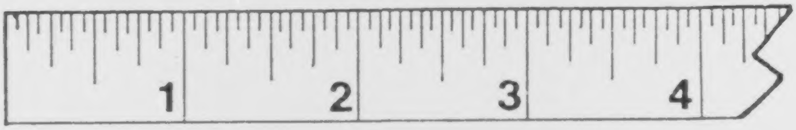

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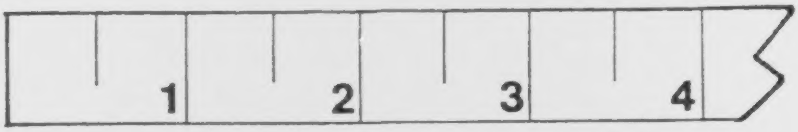

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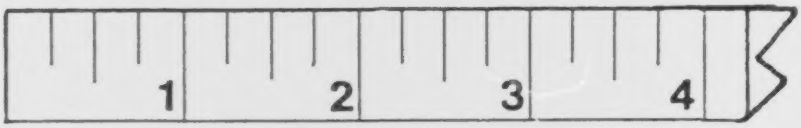
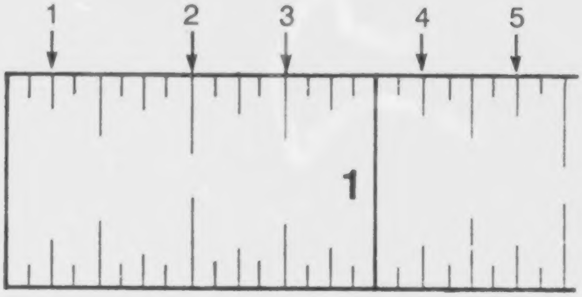


PART III (Continued)

Project 2

INSTRUCTIONS: **Indicate the measure on the following scale.**

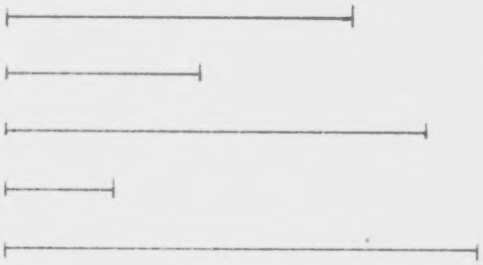
1. ____________
2. ____________
3. ____________
4. ____________
5. ____________



Project 3

INSTRUCTIONS: **Measure the lines below and tell the measurement.**

1. ____________
2. ____________
3. ____________
4. ____________
5. ____________



Project 4

INSTRUCTIONS: **Measure the following letters and tell the measurements.**

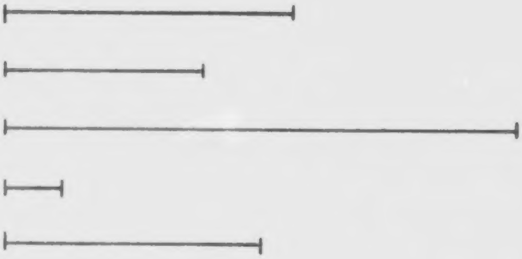
1. ____________ **DIMENSION**
2. ____________ SERIF
3. ____________ CHARACTER
4. ____________ **EIGHTH**
5. ____________ POINT

PART III (Continued)

Project 5

INSTRUCTIONS: Using a line gauge, measure the following lines.

1. ________
2. ________
3. ________
4. ________
5. ________



Project 6

INSTRUCTIONS: Using the line gauge, measure the line length of the following words.

1. ________ MEASUREMENT
2. ________ PICA
3. ________ **ASCENDER**
4. ________ POINT
5. ________ SIXTEENTH

PART IV: LAYOUT COPY PREPARATION

Project 1

INSTRUCTIONS: **Select factors that affect copy planning and preparation by placing an X in the appropriate blanks.**

_______ 1. Paper size and color

_______ 2. Ink color

_______ 3. Plant capabilities

_______ 4. Artistic value of rough layout

_______ 5. Proportion of design

Project 2

INSTRUCTIONS: **Match the effects of tone with their type characteristics.**

_______	1.	Restrained and formal	A.	Thin and flowing type
_______	2.	Strength, power, and masculinity	B.	Type style with dignity and formality
_______	3.	Light, airy, feminine	C.	Sturdy, heavy type style

PART IV (Continued)

Project 3

INSTRUCTIONS: **Select true statements concerning the use of white space and simplicity by placing an X in the appropriate blanks.**

_______ 1. White space is another term for negative lettering.

_______ 2. The amount of white space planned affects the quality and readability of material to be printed.

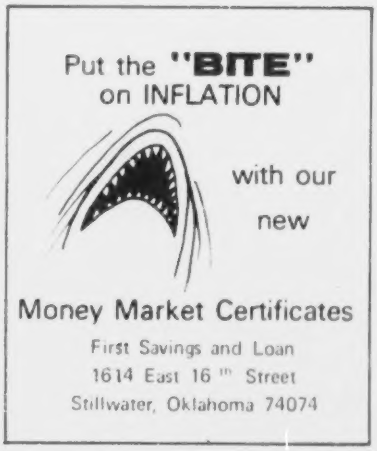
_______ 3. The use of too many different type styles on a design should be avoided.

_______ 4. Elaborate, fancy type styles can ruin the effectiveness of a design unless used carefully and sparingly.

Project 4

INSTRUCTIONS: **Specify types of balance in the illustrations shown below by writing under each whether it is formal or informal.**

ACE
PLUMBING CO.
REPAIRS
WATER HEATERS
SEWER SERVICE
WATER WELL REPAIRS
CENTRAL HEATING
BOB RYAN - Owner
377-0214
1224 S MAIN



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on INFLATION
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First Savings and Loan
1614 East 16 th Street
Stillwater, Oklahoma 74074

1. ______________________ 2. ______________________

PART V: LAYOUT PROCEDURES

Project 1

INSTRUCTIONS: A layout should provoke interest. Place an X by the functions a layout should perform.

_______ 1. Distract attention.

_______ 2. Create desire.

_______ 3. Catch the eye.

_______ 4. Create interest.

_______ 5. Create a desire not to buy the product.

_______ 6. Tell how to satisfy the desire.

_______ 7. Be poorly placed on the page.

_______ 8. Attract attention.

Project 2

INSTRUCTIONS: Match the components of a layout on the right with the correct descriptions.

A. Thumbnail sketch B. Comprehensive layout C. Rough layout

_______ 1. Shows different ways to lay out a design.

_______ 2. Aids in visualizing spacing, balance, and emphasis.

_______ 3. Small, quick drawings.

_______ 4. Explores and develops ideas.

_______ 5. Specifications for printing job in margins.

_______ 6. Aids in selecting type styles and other elements.

_______ 7. Looks as much like final printed copy as possible.

PART V (Continued)

Project 3

INSTRUCTIONS: Arrange in order these layout and paste-up steps.

_______ A. Pasting each element in proper position.

_______ B. Cropping of elements.

_______ C. Scaling of elements.

PART VI: TYPE AND LETTER STYLES

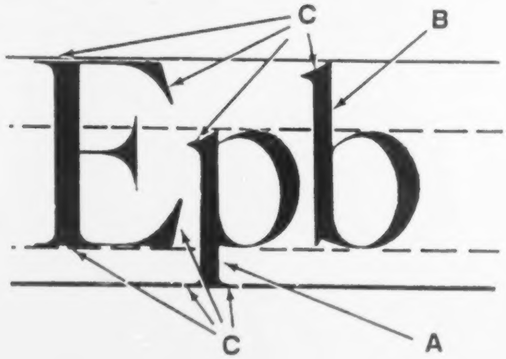
Project 1

INSTRUCTIONS: Identify parts of a type character from the illustration below by placing the appropriate letter in the proper blank.

_______ 1. Serifs

_______ 2. Descenders

_______ 3. Ascenders



Project 2

INSTRUCTIONS: Identify the type styles shown by indicating with the appropriate letter.

_______ 1. Text

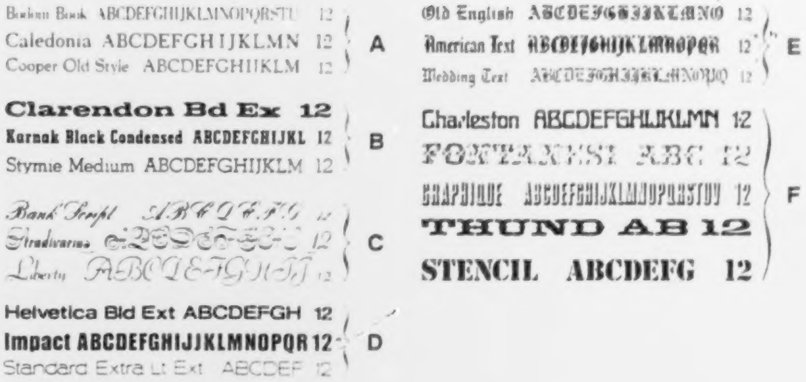
_______ 2. Roman

_______ 3. Script

_______ 4. Novelty

_______ 5. Square Serif

_______ 6. Gothic


Bodoni Book ABCDEFGHIJKLMNOPQRSTU 12
Caledonia ABCDEFGHIJKLMN 12
Cooper Old Style ABCDEFGHIJKLM 12
A
Clarendon Bd Ex 12
Karnak Black Condensed ABCDEFGHIJKL 12
Stymie Medium ABCDEFGHIJKLM 12
B
Bank Script ABCDEFG 12
Stradivarius ABCDEFG 12
Liberty ABCDEFGHIJ 12
C
Helvetica Bld Ext ABCDEFGH 12
Impact ABCDEFGHIJJKLMNOPQR 12
Standard Extra Lt Ext ABCDEF 12
D
Old English ABCDEFGHIJKLMNO 12
American Text ABCDEFGHIJKLMNOPQR 12
Wedding Text ABCDEFGHIJKLMNOPQ 12
E
Charleston ABCDEFGHIJKLMN 12
ABC 12
GRAPHIQUE ABCDEFGHIJKLMNOPQRSTUV 12
THUND AB 12
STENCIL ABCDEFG 12
F

PART VII: PAPER CHARACTERISTICS AND CLASSIFICATIONS

Project 1

INSTRUCTIONS: Complete the following statements by placing the correct letter in the blank provided at the left.

_______ 1. One quire of paper is:

A. 500 sheets B. 25 sheets C. 10 sheets

_______ 2. A ream of paper is:

A. 25 sheets B. 300 sheets C. 500 sheets

_______ 3. Long grain paper is better for:

A. Typing B. Duplicating C. Filing

_______ 4. A regular-size sheet of paper is:

A. 7 1/4 x 10 1/2 B. 8 1/2 x 14 C. 8 1/2 x 11

_______ 5. Legal-size paper is:

A. 8 1/2 x 14 B. 8 1/2 x 11 C. 5 1/2 x 8 1/2

_______ 6. The basic ingredient in paper is:

A. Grain B. Finish C. Fiber

_______ 7. The size of paper before it is cut is called:

A. Substance size B. Base size C. Watermark

_______ 8. Paper used to print pictures or photographs is:

A. Uncoated B. Sizing C. Coated

_______ 9. The weight of 500 sheets before it is cut is called:

A. Base weight B. Substance C. Both A and B

_______ 10. The direction the fibers run in a sheet of paper is called:

A. Base weight B. Grain C. Fiber

PART VII (Continued)

Project 1 (Continued)

_______ 11. A design pressed into paper while it is being made is called:

A. Watermark B. Finish C. Fiber

_______ 12. Index cards are made out of:

A. Bond paper B. Bristol paper C. Cover paper

_______ 13. Paper used in stencil duplication is:

A. Smooth paper B. Coarse paper C. Not A or B

_______ 14. Paper that has a watermark is:

A. Print paper B. Tag board C. Bond paper

_______ 15. If moist paper is in dry air, the paper will:

A. Shrink B. Stretch C. Curl

Project 2

INSTRUCTIONS: List three methods of testing the direction of the grain.

1.

2.

3.

Project 3

INSTRUCTIONS: Name two ways to decide the front side of a piece of paper.

1.

2.

PART VIII: LAYOUT

Project 1

INSTRUCTIONS: **Prepare a layout including thumbnail sketches, rough draft, and comprehensive layout. Follow your instructor's directions.**

Project 2

INSTRUCTIONS **Prepare a computer layout including heading, body text, and illustration. Follow your instructor's directions for specific computer used.**

PART VIII (Continued)

Project 3

INSTRUCTIONS: **Prepare a one-page layout to be collated into a class newspaper. Instructions are as follows:**

1. Each student in the class will prepare a one-page layout to be included in the newspaper.
2. Rough draft is to be checked by the instructor before beginning the layout.
3. Pages will be reproduced on mastermaker and offset and collated into one finished, stapled newspaper with a cover designed by the students and selected by the class.
4. Each student's work will be edited by the instructor.
5. Use 8 1/2" X 14" paper.
6. Articles will be timeless--no dates except birthdates.
7. Leave a 2" space for heading at the top. Use a strip printer to make letters for the heading. Name your own page.
8. Pressure-sensitive letters will be used for titles of articles and ads.
9. Lines will divide columns, articles, ads, and other written material.
10. Names will be used **ONLY** with written permission, which has been dated, signed, and handed in to instructor. (**Instructor should keep these on file.)
11. Each article will be typed; leave two spaces from margins for lines.
12. Content: 6 items:

    2 ads---illustrated
    1 interview
    1 article about fashion, car, unusual human interest story, etc.
    1 original poem
    1 article of your choice (i.e., puzzle, horoscope, or a game)

13. Articles may be typed on computer or typewriter, torn by bevelling, and placed with wax or rubber cement, or typed directly on paper that is to be the finished layout.
14. Produce an electrostatic master, and print 30 copies on the offset.
15. Design your own page after deciding the approximate size of articles and ads to use by preparing a rough draft.

PART VIII (Continued)

Project 4

INSTRUCTIONS: **Follow instructor's specific directions. (Instructions will vary with specific computer used. Refer to computer unit in the curriculum guide and specific computer manual for terminology and procedures.)**

Prepare a computer layout including:

a. Heading
b. Body text
c. Illustration

1. Select font, size, and style.
2. Key in page setup with margins, orientation, and size of paper.
3. To prepare heading, the BOLD command may be used with a large font size. Key in heading.
4. Key in body text according to instructor's directions.
5. Using an art form available for your specific computer, prepare an illustration related to the text, heading, and message.
6. Proofread and print according to instructor's directions.

ANSWERS TO ACTIVITIES

Activity 1

```
YARD EMPHASIS      L
   I   R        PICA
THUMBNAILSKETCH A  Y
   E   N  E     S  O
   N G T  R     T  U
PRESSURESENSITIVE  T
   I I R        U
   O D SPACING  P
F  N E L      L M W
R    S I B    I A H
A    H N A    G S O
COMPREHENSIVE H T L
T    E G E    T E E
I  B T A S CENTERING
O  A   U H    A   U
N  L   G E    B   M
 MEASUREMENT  L   B
   N     T O  E   E
   C       N      R
BEVELLING LEADING
```

Activity 2

Project 1

1. Ruler
2. T square
3. Burnisher
4. X-acto knife
5. Printer's line gauge
6. Triangle
7. Template

Project 2

1. Paper stock
2. Rubber cement or wax
3. Clear tape
4. Masking tape
5. Grids
6. Eraser
7. White-out
8. Nonreproducing pencil
9. Pencil
10. Pressure-sensitive letters and tape
11. Clip art

Project 3

1. Waxer
2. Light table
3. Strip printer
4. Typewriter
5. Computer

Activity 3

Project 1 Evaluated to the satisfaction of the instructor.

Project 2

1.	1/8	6.	3/4	11.	1 3/8
2.	1/4	7.	7/8	12.	1 1/2
3.	3/8	8.	1 inch	13.	1 5/8
4.	1/2	9.	1 1/8	14.	1 3/4
5.	5/8	10.	1 1/4	15.	1 7/8

Project 3 Evaluated to the satisfaction of the instructor.

Project 4

1.	1 inch	6.	1 3/8	11.	2 1/4
2.	1 3/4	7.	3 1/2	12.	1/2
3.	1 3/16	8.	2 5/8	13.	1 9/16
4.	2 1/2	9.	2	14.	3 5/16
5.	3	10.	2 7/16	15.	1 11/16

Project 5

1.	13/16	6.	1 1/4	11.	1 3/16
2.	1 3/16	7.	3/4	12.	11/16
3.	15/16	8.	7/8	13.	1
4.	9/16	9.	9/16	14.	7/8
5.	13/16	10.	5/8	15.	11/16

Project 6 Evaluated to the satisfaction of the instructor.

Project 7 Answer key on next page.

Project 8

1.	24 picas	6.	4 picas	11.	13 picas
2.	12 picas	7.	8 picas	12.	26 picas
3.	6 picas	8.	23 picas	13.	2 picas
4.	9 picas	9.	19 picas	14.	10 picas
5.	15 picas	10.	17 picas	15.	22 picas

Project 9

1. 5 picas
2. 6 picas
3. 5 picas
4. 3 picas
5. 4 picas
6. 8 picas
7. 5 picas
8. 6 picas
9. 5 picas
10. 6 picas
11. 7 picas
12. 4 picas
13. 6 picas
14. 4 picas
15. 4 picas

Project 10

1.	Inches	5
	Picas	30
2.	Inches	3
	Picas	18
3.	Inches	4 1/2
	Picas	27
4.	AB Inches	4
	Picas	24
	BC Inches	2
	Picas	12

Activity 4

Project 1

1. B
2. C
3. A
4. A or C
5. B or C
6. A

Project 2

1. Formal
2. Formal
3. Informal
4. Informal
5. Informal
6. Formal

Project 3 Evaluated to the satisfaction of the instructor.

Activity 5

Project 1

1. Attract attention
2. Create interest
3. Create desire
4. Tell how to satisfy the desire

Project 2

1. Thumbnail sketches 2. Rough layout 3. Comprehensive layout

Activity 6 Evaluated to the satisfaction of the instructor.

Activity 7

Project 1 Evaluated to the satisfaction of the instructor.

Project 2

1. E
2. H
3. A
4. B
5. E
6. I
7. B
8. A
9. C
10. D
11. J
12. G
13. B
14. F
15. B

Project 3

1. Stretching
2. Shrinking
3. Curling
4. Wavy edges

Activity 8

Projects 1-2 Evaluated to the satisfaction of the instructor.

COMPETENCY TEST ANSWERS

Part I

Project 1

1. F
2. H
3. J
4. C
5. N
6. A
7. K
8. G
9. M
10. B
11. L
12. I
13. R
14. O
15. D
16. Q
17. F
18. P

Project 2

1. E
2. G
3. F
4. H
5. I
6. C
7. A
8. B
9. D
10. J
11. U
12. Q
13. K
14. N
15. L
16. M
17. O
18. P
19. S
20. R
21. U

Part II

1. T
2. E
3. S
4. T
5. T
6. E
7. S
8. S
9. T
10. E
11. E
12. S
13. S
14. S
15. T
16. S
17. S
18. E
19. T
20 S
21. S
22. T
23. E

Part III

Project 1

1. Inches
2. Eighths
3. Sixteenths
4. Halves
5. Fourths

Project 2

1. 1/8
2. 1/2
3. 3/4
4. 1 1/8
5. 1 3/8

Project 3

1. 2 inches
2. 1 1/8
3. 2 7/16
4. 5/8
5. 2 3/4

Project 4

1. 15/16
2. 3/4
3. 1
4. 5/8
5. 3/4

Project 5

1. 10 picas
2. 7 picas
3. 18 picas
4. 2 picas
5. 9 picas

Project 6

1. 8 picas
2. 4 picas
3. 6 picas
4. 5 picas
5. 6 picas

Part IV

Project 1

1. X
2. X
3. X
4.
5. X

Project 2

1. B
2. C
3. A

Project 3

1.
2. X
3. X
4. X

Project 4

1. Formal
2. Informal

Part V

Project 1

1.		3.	X	5.		7.	
2.	X	4.	X	6.	X	8.	X

Project 2

1.	A	3.	A	5.	B	7.	B
2.	C	4.	A	6.	C		

Project 3

A.	3	B.	1	C.	2

Part VI

Project 1

1.	C	2.	A	3.	B

Project 2

1.	E	3.	C	5.	B
2.	A	4.	F	6.	D

Part VII

Project 1

1.	B	6.	C	11.	A
2.	C	7.	B	12.	B
3.	B	8.	C	13.	B
4.	C	9.	C	14.	C
5.	A	10.	B	15.	A

Project 2

1.	Tearing	2.	Folding	3.	Bending

Project 3 Two of the following:

1. The watermark is right side up.
2. Paper is packaged so that it is lying front side up as the label is read.
3. Usually a silver coin will make a mark on the front side.

Part VIII

Projects 1-4 Evaluated to the satisfaction of the instructor.

COMPETENCY CHECKLIST

ESSENTIAL ELEMENTS: 75.87 (d)/(m)(3)(A)

The student shall be provided opportunities to identify the procedures and equipment used in completing layouts for reprographics.

OBJECTIVE:	**The students will be able to apply the concepts and skills related to layout and design.**	MASTERY	NON-MASTERY
	MODULE A: LAYOUT AND DESIGN		
1.	**Identify terminology related to layout and design.**	______	______
2.	**List tools, supplies, and equipment used in preparing a layout.**	______	______
3.	**Convert between scales or line gauge measuring systems.**	______	______
4.	**Identify copy layout preparation considerations.**	______	______
5.	**List procedures to use when making a layout.**	______	______
6.	**Match type and letter styles to message of layout.**	______	______
7.	**Identify paper types and their uses.**	______	______
8.	**Prepare a layout including:**		
	a. **Thumbnail sketches.**	______	______
	b. **Rough draft.**	______	______
	c. **Comprehensive layout.**	______	______

STUDENT NAME______________________________

SUGGESTED UNIT LESSON PLAN

SECTION III: OPERATING OFFICE MACHINES

UNIT I: REPROGRAPHICS

ESSENTIAL ELEMENTS: **75.87 (d)/(m)(3)(B)**

ALLOCATED TIME: **2-4 Hours**

UNIT OBJECTIVE: The student will be able to identify terms, parts, and basic procedures in operating office machines used to cut, drill, staple, fold, and bind printed material.

MODULE B: SUPPLEMENTARY MACHINES

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Recognize the characteristics of a collator and identify the terms and safety precautions related to its operation.
2. Recognize the characteristics of a paper cutter and identify the terms and safety precautions related to its operation.
3. Recognize the characteristics of a paper drill and identify the terms and safety precautions related to its operation.
4. Recognize the characteristics of a saddleback stapler and identify the terms and safety precautions related to its operation.
5. Recognize the characteristics of a paper folder and identify the terms and safety precautions related to its operation.
6. Recognize the characteristics of a padding press and identify the terms and safety precautions related to its operation.
7. Recognize the characteristics of a punch and binder and identify the terms and safety precautions related to its operation.

8. Recognize the characteristics of a jogger and identify the terms and safety precautions related to its operation.

9. Demonstrate the ability to operate the:

   a. Collator

   b. Paper cutter

   c. Paper drill

   d. Saddleback stapler

   e. Paper folder

   f. Padding press

   g. Punch and binder

   h. Paper jogger

FOCUS: A knowledge of the various supplemental machine operations enhances an individual's capability of completing the reprographic activities to the fullest extent.

DOMAINS: Activities and competency tests have been designed to provide learning experiences utilizing the cognitive, psychomotor, or affective domains. Activities and competency right tests are coded on the Activity and Competency Test Matrices.

BASIC SKILLS: Activities and competency tests have been designed to reinforce the basic skills of reading, writing, and/or mathematics. Activities and competency tests have been coded on the Activity and Competency Test Matrices.

CONTENT OUTLINE

I. Collator
  A. Characteristics of collators
  B. Safety rules for operating the collator
  C. Procedures for fanning and jogging paper
  D. Loading and operating procedures

II. Paper cutter
  A. Purposes of a paper cutter
  B. Safety rules for operating the paper cutter
  C. Reading the cutting scale
  D. Operating procedures

III. Paper drill
  A. Purposes of a paper drill
  B. Safety rules for operating a paper drill
  C. Operating procedures

IV. Saddleback stapler
  A. Safety rules when using the stapler
  B. Loading and unloading the stapler
  C. Clearing a staple jam
  D. Positioning the saddle table
  E. Securing a saddleback stapler on tabletop
  F. Stapling booklets
  G. Stapling flat stacks of paper

V. Paper folder
  A. Paper folder operation

- B. Safety rules for using the paper folder
- C. Operating procedures

VI. Padding press

- A. Purposes of the padding press
- B. Safety rules when using the padding press
- C. Parts of the padding press
- D. Operating procedures

VII. Punch and binder

- A. Purposes of punch and binder
- B. Safety rules when using a punch and binder
- C. Operating procedures

VIII. Paper jogger

- A. Description of the paper jogger
- B. Safety rules for using the paper jogger
- C. Operating procedures

SUGGESTED TEACHER ACTIVITIES

General Teacher Preparation

1. Preview unit.
2. Review unit objectives.
3. Make instructional analysis.
4. Assess student learning needs.
5. Decide on lesson domain: cognitive, psychomotor, or affective domain.
6. Select instructional materials based on instructional analysis and student learning needs.
7. Select instructional strategies based on lesson content and student learning needs.
8. Prepare lesson plans from the unit lesson.
9. Prepare additional instructional material.
10. Reserve necessary media and equipment.

Teacher Presentation

1. Present student objectives.
2. Establish rapport with students.
3. Review lesson objectives with students.
4. Relate lesson to prior or future learning.
5. When appropriate, encourage student interaction through questioning, discussions, or some other strategy.
6. Emphasize the value/importance of the unit or activity.
7. Allow time for closure of a lesson.

Reteach Activities

1. Identify area(s) of weakness from results of evaluation.
2. Select unit activities not previously used.
3. Use additional resources and/or create materials based on student learning needs.
4. Use a different teaching strategy in reteaching.
5. Retest.

Specific Teaching Activities

1. Demonstrate each piece of equipment, going through the safety rules with the students.

2. There are no hands-on activities for this module. Incorporate the use of these supplemental machines with the remaining modules of the section.

3. While completing the following modules in this section, make arrangements to have projects for students to complete, using each piece of equipment so they get some hands-on experience.

4. The Competency Checklist states that the student will be able to demonstrate the ability to operate the supplementary machines. These competencies may be demonstrated at any time during the completion of this unit of operating reprographic equipment.

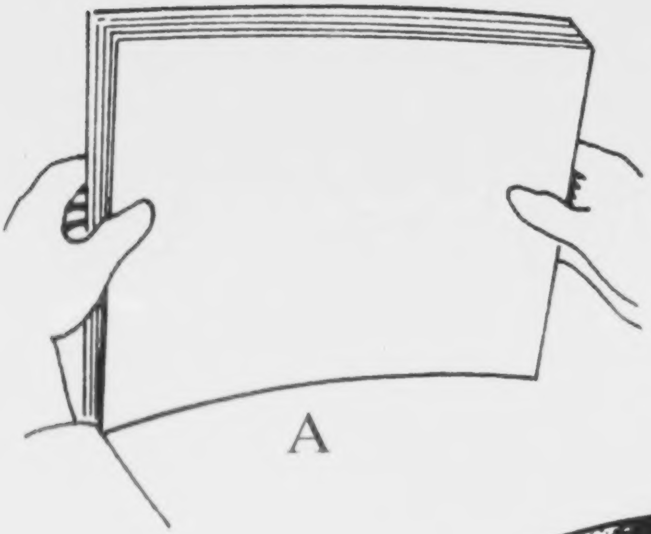
ACTIVITY MATRIX

Activities	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
1	X			X		
2	X			X		

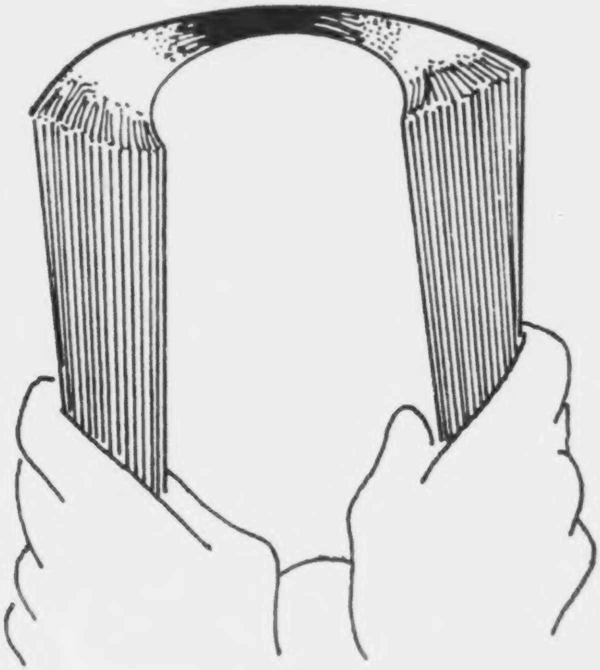
COMPETENCY TEST MATRIX

Parts	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
I Project 1	X			X		
Project 2	X			X		
II Project 1	X			X		
Project 2	X			X		
III Project 1	X			X		
Project 2	X			X		
IV Project 1	X			X		
Project 2	X			X		
V Project 1	X			X		
Project 2	X			X		
VI Project 1	X			X		
Project 2	X			X		
VII Project 1	X			X		
Project 2	X			X		
VIII	X			X		

FANNING PAPER

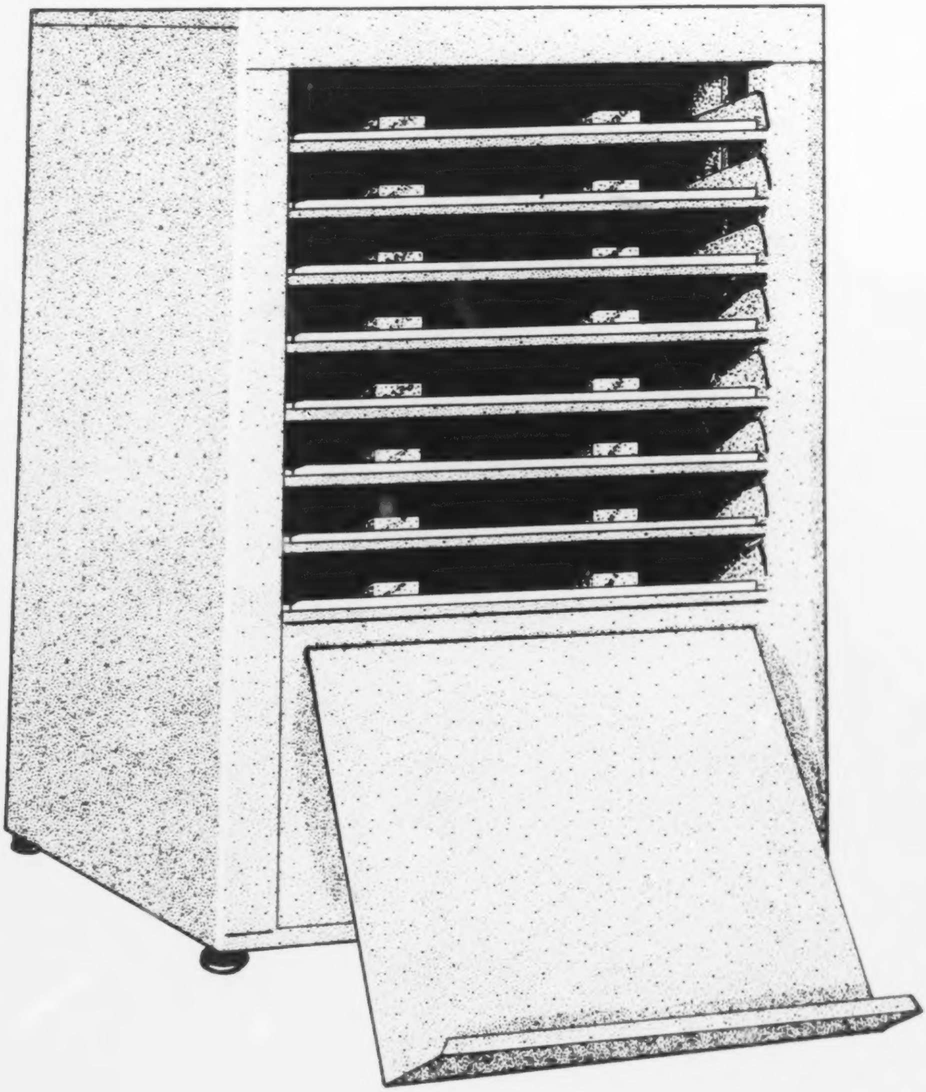


A



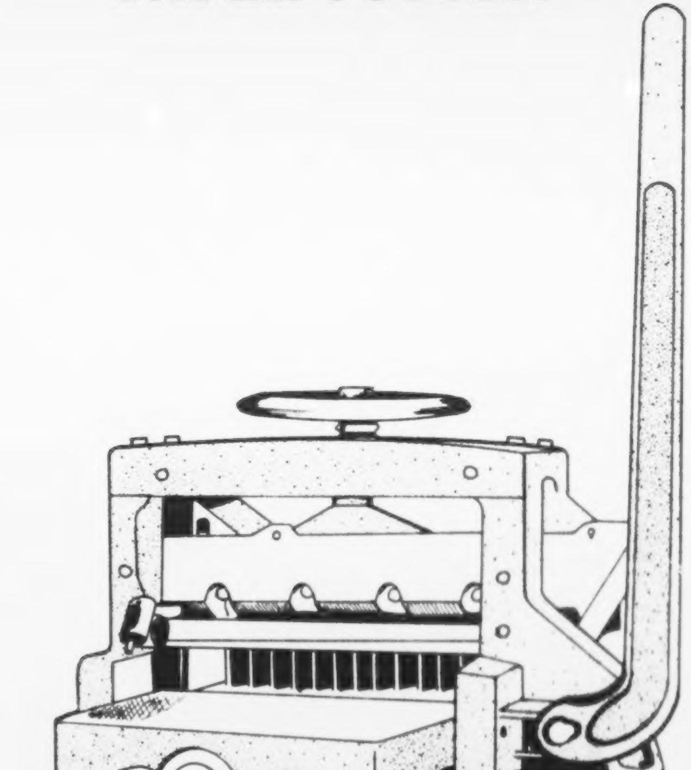
B

PAPER COLLATOR



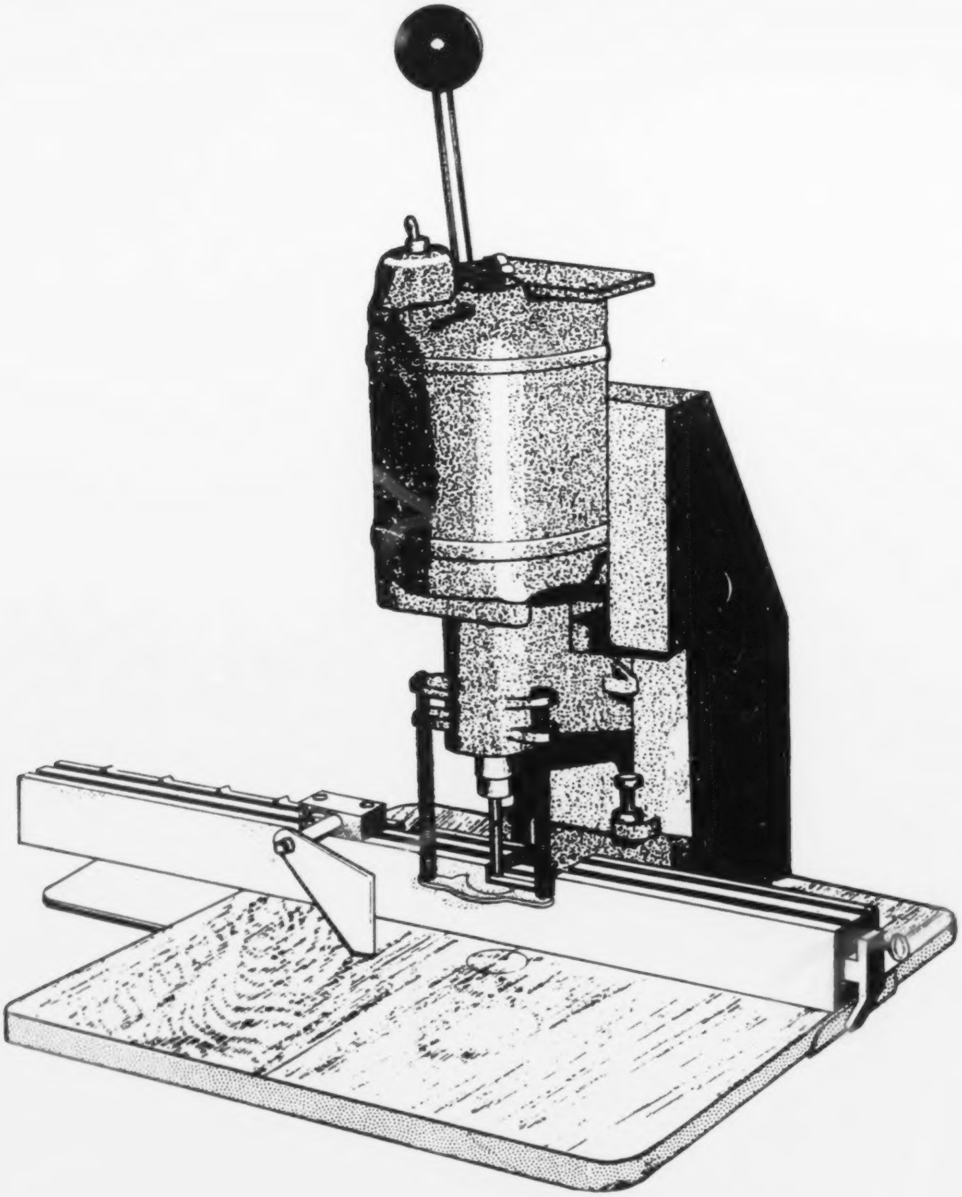
TM-2

PAPER CUTTER



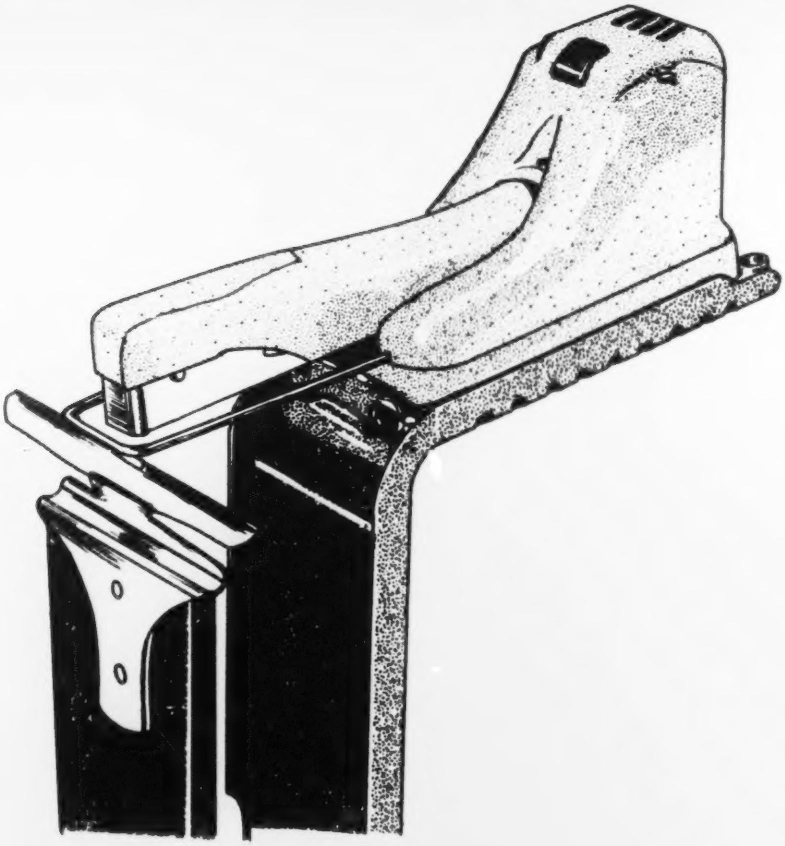
TM-3

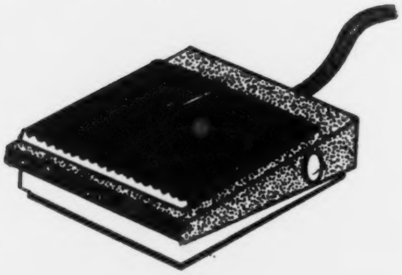
PAPER DRILL



TM-4

SADDLEBACK STAPLER

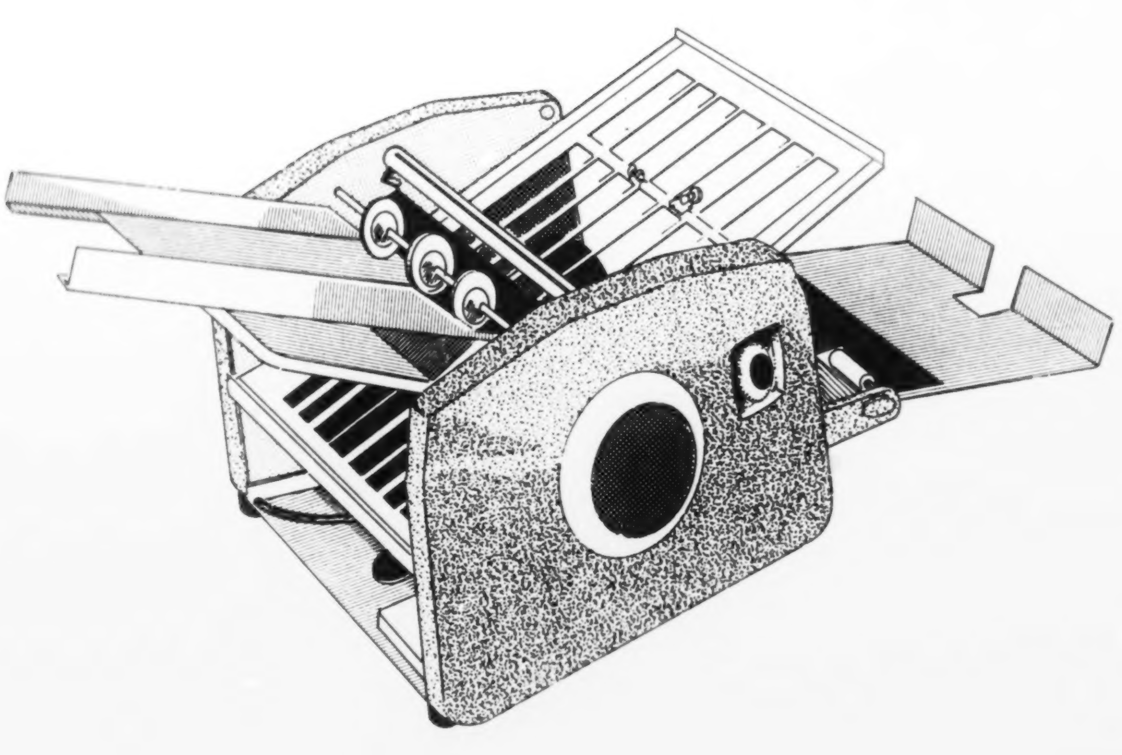




FOOT PEDAL

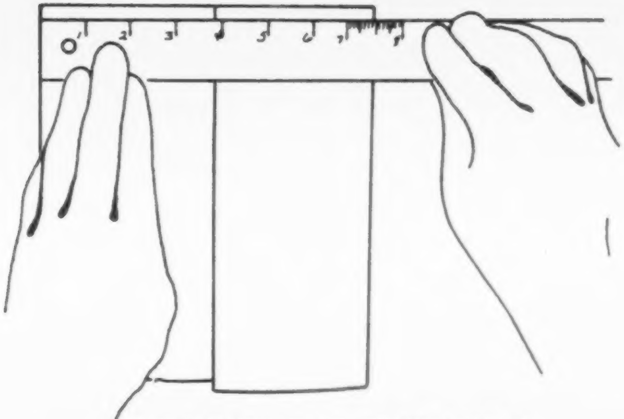
TM-5

FOLDING MACHINE

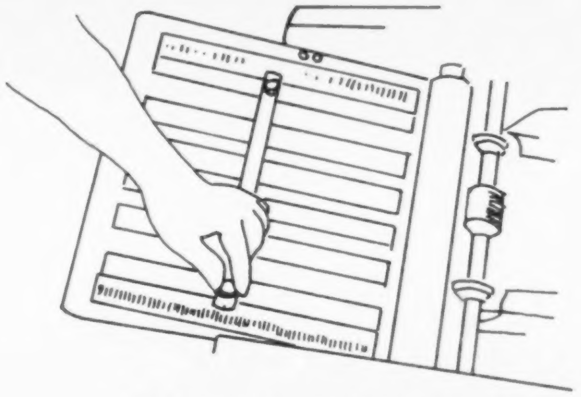


TM-6

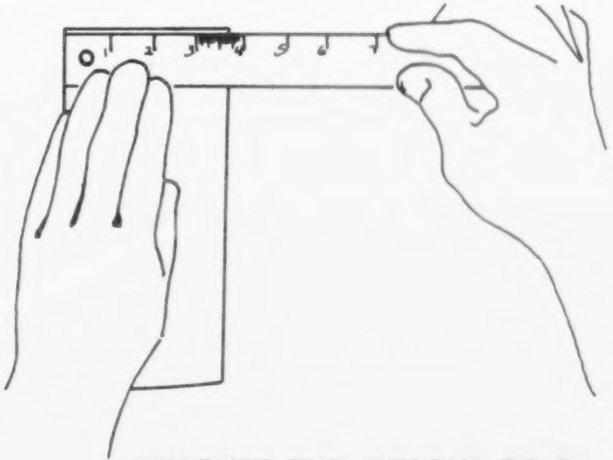
SETTING UPPER AND LOWER FOLD PLATE



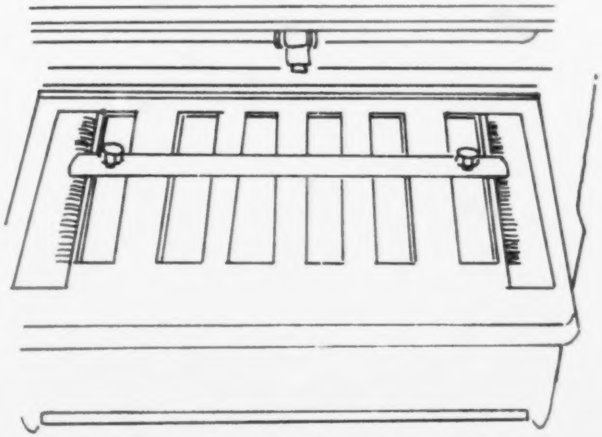
MEASURE THE FIRST FOLD



SET THE UPPER FOLD PLATE

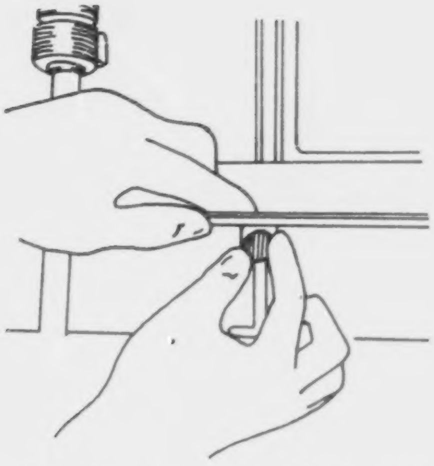


MEASURE THE SECOND FOLD

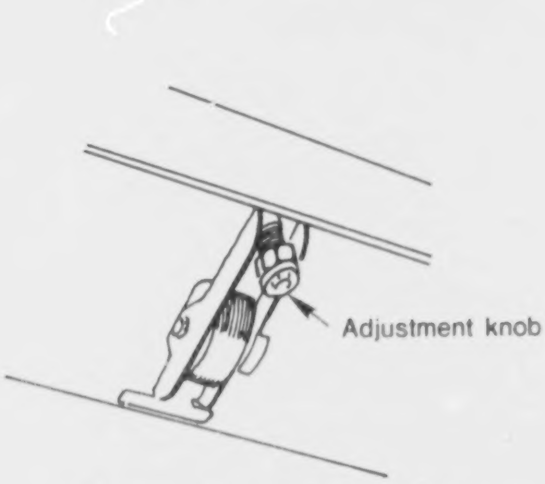


SET THE LOWER FOLD PLATE

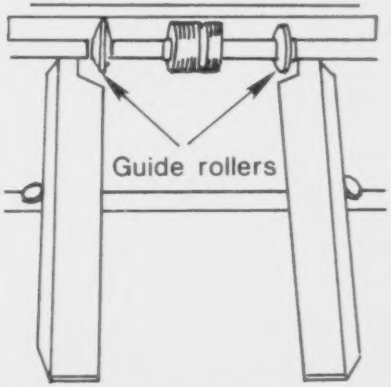
SETTING ADJUSTMENTS ON THE FOLDER



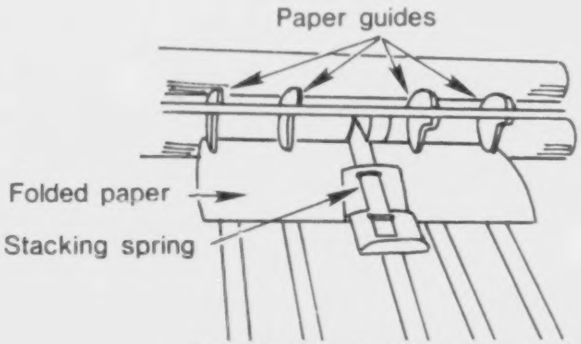
SET THE LEFT SIDE GUIDE RAIL


Adjustment knob

ADJUST THE FEEDING SYSTEM

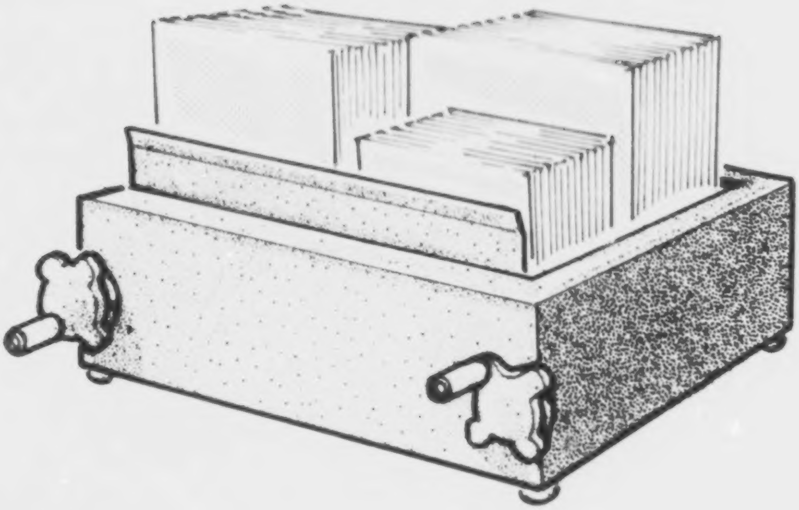

Guide rollers

POSITION THE GUIDE ROLLERS


Paper guides
Folded paper
Stacking spring

POSITION THE STACKING SPRING
AND PAPER GUIDES

PADDING PRESS



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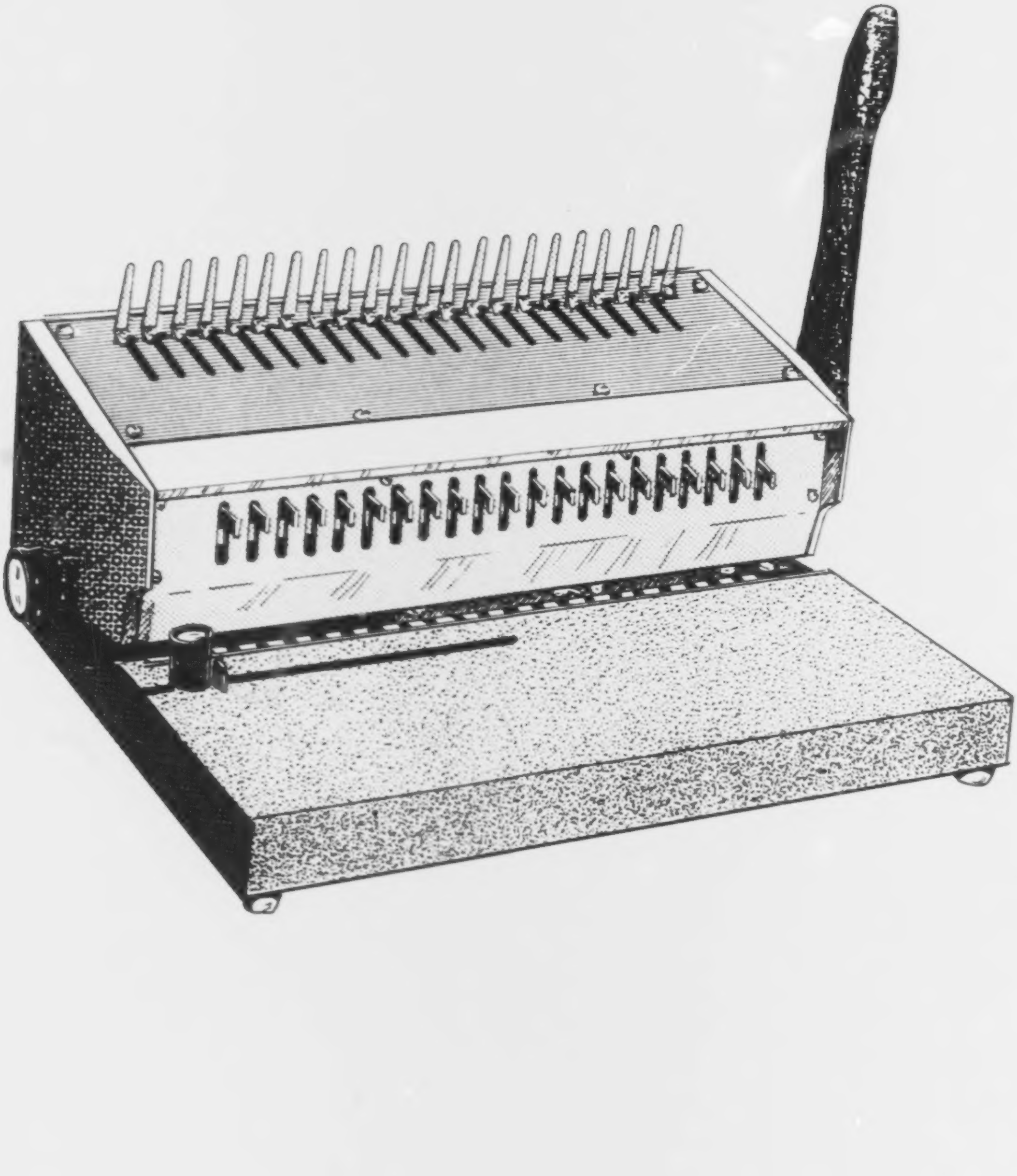
PUNCH AND BINDER



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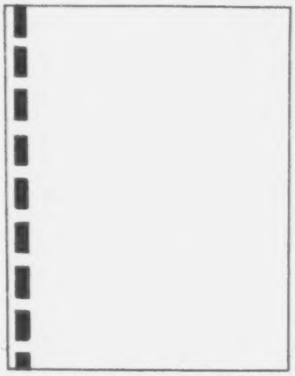
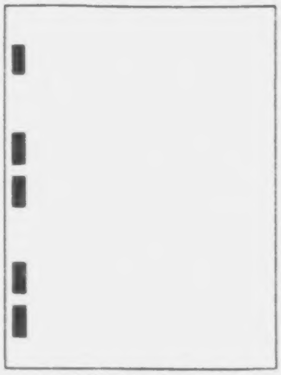
CORRECT AND INCORRECT PUNCHES



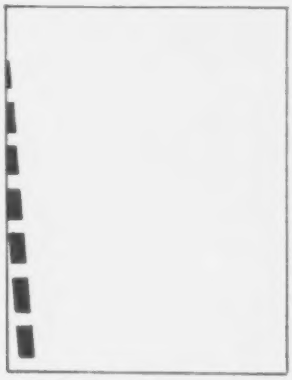
EDGES PUNCHED

(Push-pull pin not de-activated on edge of paper)



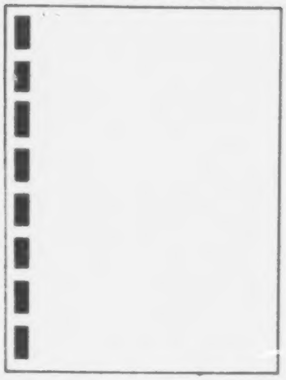
IMPROPER PINS DE-ACTIVATED

(Leaves spaces not punched)

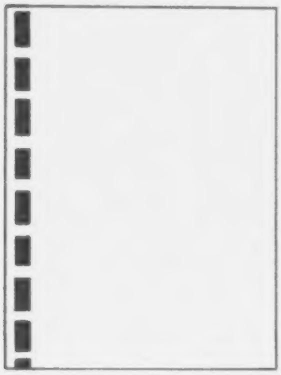


CROOKED PUNCH

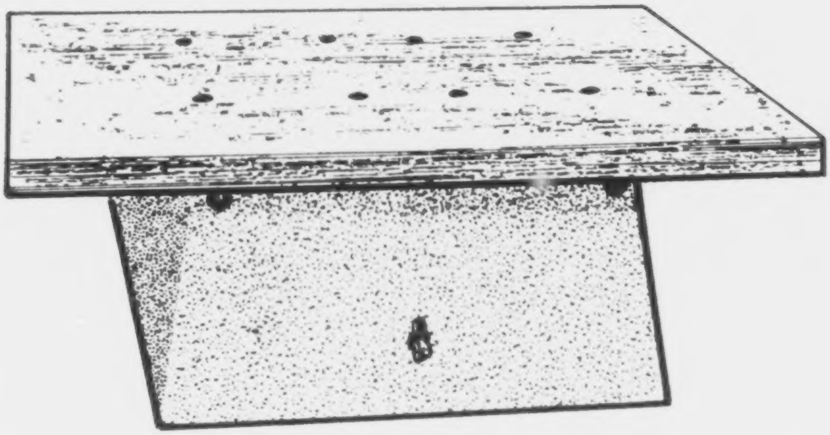
CORRECT PUNCH



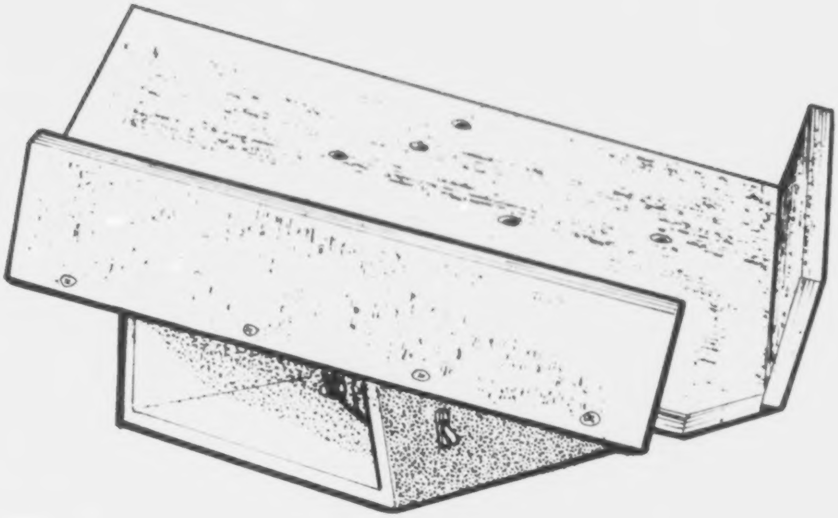
INCORRECT MARGINS
(Top and Bottom)



JOGGER



FLAT TOP



TILT TOP

COMPETENCY TEST

PART I: COLLATOR

Project 1

INSTRUCTIONS: **Match the following terms with the definitions by placing the correct letter in the space at the left.**

A. Brass skids
B. Feeder fingers
C. Collate
D. Fanning
E. Paper tray
F. Set
G. Stacking tray

_____ 1. Container which holds collated material.

_____ 2. A group or series of collated papers.

_____ 3. Container that holds sets of paper as they are collated.

_____ 4. Protector feet located inside the collator bins.

_____ 5. Method of putting air between sheets of paper.

_____ 6. Device that pushes the paper out of the collator bins.

_____ 7. Method of putting pages of printed material in order.

PART I (Continued)

Project 2

INSTRUCTIONS: **Answer the following statements True or False by placing a T for True or an F for False in the space at the left.**

_____ 1. Collators are also called joggers.

_____ 2. The purpose of the collator is to assemble separate sheets of paper.

_____ 3. A collator has rollers which force separate sheets of paper out of bins.

_____ 4. It is not necessary to unfasten the feeder fingers in the bins which will not be used.

_____ 5. Do not overload the collator.

_____ 6. In fanning and jogging paper, use thumb pressure when binding the paper.

_____ 7. In loading the collator, turn the switch to ON until feeder fingers are in the forward position.

_____ 8. Continue gathering sheets until all of the trays are empty.

_____ 9. Place the stack of page 1 in bin #1, and continue with pages 2, 3, etc., until all of the trays are filled.

_____ 10. The collator may contain from 8 to 150 bins.

PART II: PAPER CUTTER

Project 1

INSTRUCTIONS: **Match the following terms with the definitions by placing the correct letter in the space at the left.**

A. Safety lever
B. Indicator
C. Scale
D. Backstop
E. Engage

_____ 1. Pointer.

_____ 2. The process of bringing together.

_____ 3. Measure or rule.

_____ 4. Metal bar used to position and straighten paper.

_____ 5. Device which prevents cutter blade from being used.

PART II (Continued)

Project 2

INSTRUCTIONS: **Answer the following statements True or False by placing a T for True or an F for False in the space at the left.**

_____ 1. A purpose of a paper cutter is to provide an accurate cutting of paper.

_____ 2. Two people can operate a paper cutter more easily than one person.

_____ 3. The paper cutter bed needs to be clear before the paper cutter is used.

_____ 4. A dull cutter blade is better than a sharp cutter blade.

_____ 5. Both hands are placed on the paper cutter when making a cut.

_____ 6. The scale on the paper cutter is usually shown in inches.

_____ 7. A sharp cutter blade is less likely to cause serious injuries.

_____ 8. Lift cutter handle after each cut to engage safety latch.

_____ 9. The cutting scale shows the distance from the backstop to the line of cut.

_____ 10. A purpose of the paper cutter is to accurately cut small pages from large sheets of paper.

PART III: PAPER DRILL

Project 1

INSTRUCTIONS: **Match the following terms with the definitions by placing the correct letter in the space at the left.**

A. Paper drill bit
B. Spindle
C. Handle
D. Sharpener
E. Drill block
F. Drill bit remover
G. Backstop
H. Chuck

_____ 1. Large end of the spindle which holds the bit.

_____ 2. Spinning shaft that holds the drill bit.

_____ 3. Steel rod with a flat side on one end.

_____ 4. Board across feed table area that holds paper in place.

_____ 5. Grinding stone shaped like a pencil.

_____ 6. Control lever that operates the drill bit.

_____ 7. Round circle of wood beneath the drill bit.

_____ 8. Hollow metal device that puts a hole in paper.

PART III (Continued)

Project 2

INSTRUCTIONS: **Answer the following statements True or False by placing a T for True or an F for False in the space provided.**

_____ 1. The paper drill is used to put holes in large amounts of paper.

_____ 2. The paper drill is used to jog papers for use in making paper pads.

_____ 3. Examine drill bit frequently to see if it is clogged or plugged.

_____ 4. Keep work area around paper drill dirty.

_____ 5. Before drilling a hole, set the backstop at the proper depth.

_____ 6. Use both hands to guide the bit down through the marked area of the paper.

_____ 7. Keep hair tied back when using the paper drill.

_____ 8. The paper drill is used to drill holes which make it easy to place paper neatly in folders or loose-leaf binders.

_____ 9. When using the drill bit, keep hands on the tip of the drill.

_____ 10. When using the drill bit, keep proper speed and pressure to reduce the possibility of fire.

PART IV: SADDLEBACK STAPLER

Project 1

INSTRUCTIONS: **Match the following terms to the definitions by placing the correct letter in the space at the left.**

A. C-clamp
B. Faceplate
C. Handle
D. Pusher rod
E. Saddle table
F. Staples
G. Tension release
H. Staple remover

_____ 1. Fastener used to hold a tabletop stapler.

_____ 2. Device used to remove staples.

_____ 3. Pre-formed, U-shaped pieces of wire which are drawn through layers of paper to hold the paper together.

_____ 4. Metal plate that can be used flat when stapling stacks of paper or angled when stapling books.

_____ 5. Piece of protective metal at the front of the stapler.

_____ 6. Small knob at the rear of the loading rod which releases the spring action of the stapler.

_____ 7. Long piece of U-shaped metal which presses the staples to the proper place for use.

_____ 8. Control lever on stapler.

PART IV (Continued)

Project 2

INSTRUCTIONS: **Answer the following statements True or False by placing T for True or F for False in the space at the left.**

_____ 1. When stapling flat stacks of paper, be sure the saddle table is at an angle.

_____ 2. When stapling booklets, be sure the saddle table is flat.

_____ 3. To fasten the saddleback stapler to a tabletop, hold the stapler firmly with one hand, and with the other hand, fasten the stapler to the table using the C-clamp.

_____ 4. Always release the tension knob before removing faceplate.

_____ 5. Before operating the saddleback stapler, be sure it is clamped securely.

_____ 6. Remove defective staples with your hand.

_____ 7. When clearing a staple jam, first remove the faceplate.

_____ 8. When stapling a flat stack of paper, use both hands to depress the stapler.

_____ 9. Keep hands away from stapling area.

_____ 10. There is no way to remove a staple if it is incorrect.

PART V: FOLDING MACHINE

Project 1

INSTRUCTIONS: **Match the following terms with the definitions by placing the correct letter in the space at the left.**

A. Upper fold plate
B. Lower plate
C. Deflector
D. Feed rollers
E. Guide rails
F. Guide rollers
G. Stacking spring

_____ 1. Metal strips that hold paper as it is removed from folding machine.

_____ 2. Metal plate under paper tray.

_____ 3. The device which moves paper out of machine.

_____ 4. Metal guards used to guide paper out of the machine.

_____ 5. Metal plate at top of machine.

_____ 6. Shield which keeps paper from going into lower plate.

_____ 7. The device which moves paper on the folder.

PART V (Continued)

Project 2

INSTRUCTIONS: **Answer the following statements True or False by placing a T for True or an F for False in the space at the left.**

_____ 1. As the paper is fed into the folder, it passes onto the lower fold plate.

_____ 2. Some paper folders are equipped with a fold chart.

_____ 3. If only one fold is to be made, only the lower fold plate is used.

_____ 4. The folding system must be adjusted to the thickness of the paper being folded.

_____ 5. The feeding system is never checked for accuracy.

_____ 6. The two outside guides are positioned about three inches from the edge of the paper.

_____ 7. Always turn the machine OFF before making adjustments.

_____ 8. Jog and fan the paper before it is fed into the machine.

_____ 9. When the edge of the paper strikes the fold plate, the paper buckles at the point where the machine is set.

_____ 10. If the deflector level is in the OFF position, the paper is blocked from entering the lower fold plate.

PART VI: PADDING PRESS

Project 1

INSTRUCTIONS: **Match the following terms to the definitions by placing the correct letter in the space at the left.**

A. Backboard
B. Chipboard
C. Padding cement
D. Padding press
E. Pressure board
F. Water soluble

_____ 1. Cardboard backing on a pad.

_____ 2. Material which holds sheets of paper together at one edge.

_____ 3. Substance that will dissolve in water.

_____ 4. The part of the padding press that squeezes the sheets of paper together.

_____ 5. The part of the padding press which evens a stack of paper.

_____ 6. Device which holds stacks of paper to be made into pads.

Project 2

INSTRUCTIONS: **Answer the following statements True or False by placing a T for True or an F for False in the space at the left.**

_____ 1. A purpose of a padding press is to combine loose sheets of paper.

_____ 2. While the cement on the pads is still wet, separate the pads with a knife.

_____ 3. The last step in making a pad is to separate the pads with a knife or by hand.

_____ 4. The pads are cemented from the front.

_____ 5. The cement is applied with a brush.

PART VII: PUNCH AND BINDER

Project 1

INSTRUCTIONS: **Match the following terms with the definitions by placing the correct letter in the space at the left.**

A. Align
B. Extend
C. Neutral
D. Paper side guide
E. Push-pull pins
F. Binder
G. Binding stop
H. Coverset
I. Vertical
J. Punching dies

_____ 1. Being straight up and down.

_____ 2. Device which stops the paper at the proper place.

_____ 3. Front and back covers to be punched and placed with printed material.

_____ 4. Control lever that adjusts binding spread.

_____ 5. To spread out.

_____ 6. Metal cutters.

_____ 7. To line up, placing two or more materials in correct position.

_____ 8. Device used to attach pages of materials together.

_____ 9. Not in operating position.

_____ 10. Steel levers which control operation of punching dies.

PART VII (Continued)

Project 2

INSTRUCTIONS: Answer the following statements True or False by placing a T for True or an F for False in the space at the left.

_____ 1. Use care when handling plastic binders.

_____ 2. Run fingers over paper edge to check paper cut.

_____ 3. Paper is placed into the machine with the edge just inside the punch and binder.

_____ 4. The left margin is never set; it always stays the same.

_____ 5. The push-pull pins are raised where holes are not needed.

_____ 6. Before punching several sheets, always punch one sheet to make sure the edges are even.

_____ 7. Papers are jogged on the opposite side to be punched.

_____ 8. The handle is in the NEUTRAL position when the paper is inserted into the machine.

_____ 9. The sheets are placed against the backstop and to the left of the paper guide.

_____ 10. Pull the handle with a quick forward motion when using the punch and binder.

_____ 11. In binding a book, the right size for a binder is one that is about 1/4 inch larger than the thickness of the book.

_____ 12. If punch and binder punches with difficulty, paper chips have probably filled the paper chip tray, causing a jam.

_____ 13. The punch and binder will not punch coversets, because coversets are larger than paper sheets.

_____ 14. In binding a book, place the front cover face down on the binding fingers, with each opening going into a separate binding finger.

_____ 15. To clear a paper chip jam, place the machine on its back, and slide out the tray, allowing the chips to fall out.

PART VIII: PAPER JOGGER

INSTRUCTIONS: **Answer the following statements True or False by placing a T for True or an F for False in the space at the left.**

_____ 1. A paper jogger may consist of a small electric motor fastened to a wooden tag.

_____ 2. Slide fingers across paper edges to check paper cut.

_____ 3. Dry hands before using the jogger.

_____ 4. Allow jogger to run a few minutes before putting paper into jogger.

_____ 5. Let the paper jogger operate for a few seconds until all edges of the paper are even.

_____ 6. A paper jogger is a machine which puts sheets of paper in an even stack.

_____ 7. Place one piece of paper on the jogger at a time.

_____ 8. Hold the paper steady with one hand, and turn the machine on with the other.

ANSWERS TO ACTIVITIES

Activity 1

```
  DRILLBITREMOVER P
         E        R
       BINDERDEVICE
         S        S
  FEEDERFINGERS   S
         O    T   U
  S FANNING   A   R
  T      R C  C S E
 FACEPLATE H  K H B
  C      L INDICATOR
  K   B  E P  N R A
C I   R  A B  G P R
O N  BACKSTOP S E D
V G   S  E A  P N S
E T   SET  R  R E
R R   S    D  I R
SCALE K       N
E Y   I   ENGAGE
T     D
    PUSHPULLPINS
```

Activity 2

1. B
2. E
3. C
4. F
5. D
6. A
7. G
8. C
9. H
10. D, G, E
11. A
12. B
13. A, B

ANSWERS TO COMPETENCY TESTS

Part I

Project 1

1. E
2. F
3. G
4. A
5. D
6. B
7. C

Part I (Continued)

Project 2

1.	F	6.	F
2.	T	7.	T
3.	T	8.	F
4.	F	9.	T
5.	T	10.	T

Part II

Project 1

1.	B	4.	D
2.	E	5.	A
3.	C		

Project 2

1.	T	6.	T
2.	F	7.	T
3.	T	8.	T
4.	F	9.	T
5.	F	10.	T

Part III

Project 1

1.	H	5.	D
2.	B	6.	C
3.	F	7.	E
4.	G	8.	A

Project 2

1.	T	6.	F
2.	F	7.	T
3.	T	8.	T
4.	F	9.	F
5.	T	10.	T

Part IV

Project 1

1.	A	5.	B
2.	H	6.	G
3.	F	7.	D
4.	E	8.	C

Project 2

1.	F	6.	F
2.	F	7.	F
3.	T	8.	F
4.	T	9.	T
5.	T	10.	F

Part V

Project 1

1.	G	5.	A
2.	B	6.	C
3.	F	7.	D
4.	E		

Project 2

1.	F	6.	F
2.	T	7.	T
3.	F	8.	T
4.	T	9.	T
5.	F	10.	F

Part VI

Project 1

1.	B	4.	E
2.	C	5.	A
3.	F	6.	D

Part VI (Continued)

Project 2

1. T
2. F
3. T
4. F
5. T

Part VII

Project 1

1. I
2. D
3. H
4. G
5. B
6. J
7. A
8. F
9. C
10. E

Project 2

1. T
2. F
3. F
4. F
5. T
6. T
7. F
8. T
9. T
10. T
11. F
12. T
13. F
14. T
15. T

Part VIII

1. T
2. F
3. T
4. F
5. T
6. T
7. F
8. T

COMPETENCY CHECKLIST

ESSENTIAL ELEMENTS: 75.87 (d)/(m)(3)(B)

The student shall be provided opportunities to identify the procedures used in operating reprographic equipment.

OBJECTIVE:	The student will be able to identify terms, parts, and basic procedures in operating office machines used to cut, drill, staple, fold, and bind printed material.	MASTERY	NON-MASTERY
	MODULE B: SUPPLEMENTARY MACHINES		
1.	Recognize the characteristics of a collator and identify the terms and safety precautions related to its operation.	______	______
2.	Recognize the characteristics of a paper cutter and identify the terms and safety precautions related to its operation.	______	______
3.	Recognize the characteristics of a paper drill and identify the terms and safety precautions related to its operation.	______	______
4.	Recognize the characteristics of a saddleback stapler and identify the terms and safety precautions related to its operation.	______	______
5.	Recognize the characteristics of a paper folder and identify the terms and safety precautions related to its operation.	______	______
6.	Recognize the characteristics of a padding press and identify the terms and safety precautions related to its operation.	______	______
7.	Recognize the characteristics of a punch and binder and identify the terms and safety precautions related to its operation.	______	______
8.	Recognize the characteristics of a jogger and identify the terms and safety precautions related to its operation.	______	______

COMPETENCY CHECKLIST (Continued)

	MASTERY	NON-MASTERY
9. Demonstrate the ability to operate the:		
a. Collator	______	______
b. Paper cutter	______	______
c. Paper drill	______	______
d. Saddleback stapler	______	______
e. Paper folder	______	______
f. Padding press	______	______
g. Punch and binder	______	______
h. Paper jogger	______	______
	______	______
	______	______
	______	______
	______	______

STUDENT NAME______________________________

SUGGESTED UNIT LESSON PLAN

SECTION III: OPERATING OFFICE MACHINES

UNIT I: REPROGRAPHICS

ESSENTIAL ELEMENTS: **75.87 (d)/(m)(3)(B)**

ALLOCATED TIME: **5-10 Hours**

UNIT OBJECTIVE: Students will demonstrate proper use of reprographic equipment and correct procedures for producing legible copies and quality documents.

MODULE C: COPY MACHINES

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Match terms related to copier reprographics.
2. Describe features of the digital copier process.
3. Identify for each segment of copier classification the features, how many copies per minute, and where used.
4. List ten copier features and describe any three of them in paragraph form, using correct grammar and punctuation.
5. List five advantages of using copiers.
6. Describe in paragraph form, using correct grammar and punctuation, four methods of controlling copier operating procedures.
7. Demonstrate correct copy preparation techniques.
8. Discuss in paragraph form, using correct grammar and punctuation, copyright use and how it affects him/her.

FOCUS: Reprographic and correction techniques in offices have changed over the years. Today, the office worker makes a copy of a document with a copy machine rather that using carbon paper. Reprographics is no longer taking a backseat in office productivity; therefore, it is important for the new office worker to be well trained in reprographic techniques.

DOMAIN:	Activities and competency tests have been designed to provide learning experiences utilizing the cognitive, psychomotor, or affective domains. Activities and competency tests are coded on the Activity and Competency Test Matrices.
BASIC SKILLS:	Activities and competency tests have been designed to reinforce the basic skills of reading, writing, and/or mathematics. Activities and competency tests have been coded on the Activity and Competency Test Matrices.

CONTENT OUTLINE

I. Reprographics

   A. Defined

   B. Evolution of today's office copier

   C. Types of copier processes

   D. Other copier technologies

   E. Classification of copiers

   F. Special xerographic features

   G. Advantages of using copy machines

   H. Controlling copying costs

   I. Controlling operating procedures

   J. Copy preparation procedures

   K. Finishing techniques

   L. New copier technology

II. Copying rights and crimes

   A. U.S. Copyright Law, 1978

   B. General copying rules

SUGGESTED TEACHER ACTIVITIES

General Teacher Preparation

1. Preview unit.
2. Review unit objectives.
3. Make instructional analysis.
4. Assess student learning needs.
5. Decide on lesson domain: cognitive, psychomotor, or affective domain.
6. Select instructional materials based on instructional analysis and student learning needs.
7. Select instructional strategies based on lesson content and student learning needs.
8. Prepare lesson plans from the unit lesson.
9. Prepare additional instructional material.
10. Reserve necessary media and equipment.

Teacher Presentation

1. Present student objectives.
2. Establish rapport with students.
3. Review lesson objectives with students.
4. Relate lesson to prior or future learning.
5. When appropriate, encourage student interaction through questioning, discussions, or some other strategy.
6. Emphasize the value/importance of the unit or activity.
7. Allow time for closure of a lesson.

Reteach Activities

1. Identify area(s) of weakness from results of evaluation.
2. Select unit activities not previously used.
3. Use additional resources and/or create materials based on student learning needs.
4. Use a different teaching strategy in reteaching.
5. Retest.

Specific Teaching Suggestions

1. Become familiar with the copier to be used. Know the brand name, model number, and safety rules for your specific machine. The safety rules should be taught prior to students' use of the machine.

2. Make a file of sample items produced by copier–duplex, reduced, enlarged, book copy mode, transparency, copy too light, copy too dark, and copies produced on various sizes of paper.

3. Prepare and practice a demonstration performing the various functions available on the copier to be used.

4. Make arrangements for the school secretary or other secretary or aide to speak on the use of the school copier by office personnel.

5. Become familiar with the manual supplied with the copier to be used, and assemble handouts and transparencies from the graphics.

6. Prepare a user's copy log for students' use.

7. Provide students with a document to be copied.

8. Prepare instructions for a cut-and-paste document. Possible needs are scissors, rubber cement, clear paper, clip art, typewriter or computer with printer, light table, grid, T square, X-acto knife, white-out for copiers, ruler, press-on-letters, pens, tape or wax.

ACTIVITY MATRIX

Activities	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
1	X			X		
2	X				X	
3	X				X	
4 Project 1	X				X	
Project 2	X				X	
5	X				X	
6	X				X	
7 Project 1	X	X			X	
Project 2	X	X			X	
8 Project 1	X				X	
Project 2	X	X			X	

COMPETENCY TEST MATRIX

Parts	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
I	X			X		
II	X			X		
III	X			X		
IV	X				X	
V	X				X	
VI	X				X	
VII	X	X			X	
VIII	X				X	

COMPETENCY TEST

PART I: TERMINOLOGY

INSTRUCTIONS: Match the correct term with the proper definition.

A. Cartridge
B. Centralized
C. Clear button
D. Component
E. Copier
F. Copy log
G. Copyright
H. Cut-and-paste
I. Decentralized
J. Digital copier
K. Dummy
L. Duplexing
M. Editing
N. Electrostatic process
O. Enlarge
P. Graphics
Q. Halftones
R. Horizontal
S. Layout
T. Light/dark
U. Low-volume copier
V. Mid-volume copier
W. Monitoring devices
X. Original
Y. Plain paper copier
Z. Recirculating
AA. Reduce
BB. Reprographics system
CC. Toner
DD. Vertical

_____ 1. A mock layout showing placement of art and text.

_____ 2. A process of making a copy larger than the original.

_____ 3. Machine that makes exact reproductions from an original.

_____ 4. A method of cutting out material and pasting it into place for production of copy.

_____ 5. Any material that is keyboarded, printed, drawn, or handwritten.

_____ 6. Document to be copied.

_____ 7. Copying on front and back of the page.

_____ 8. Control on copier to adjust tone of image.

_____ 9. Book in which records of copier use are kept.

_____ 10. Law which protects the writer's material from being illegally copied.

_____ 11. A control button when pushed, clears number of copies ordered from machine.

_____ 12. Material, by-product of carbon black, which provides the copy image.

_____ 13. Procedure to make the copy smaller than the original.

_____ 14. Produces 21 to 50 copies per minute, 60,000 per month.

_____ 15. A type of copier that provides the user with control over size, shape, and contents of copy.

_____ 16. Reentering a document into the copier for the purpose of printing on the back.

_____ 17. Uses electricity, light, and heat to produce and fuse an image on paper.

_____ 18. Copy will be taller than wide.

_____ 19. Copier that uses plain paper instead of a special treated paper.

_____ 20. All work which varies in tone.

_____ 21. When all copy machines are located in separate work areas, and employees in that area can use them to make their own copies.

_____ 22. All procedures and machines involved in reproducing printing materials.

_____ 23. Arrangement of material on the page.

_____ 24. Copy will be wider than it is tall.

_____ 25. Container holding toner.

_____ 26. Changing text to improve the quality of the material.

_____ 27. When all copy machines are located in one place, and copies are made only by people who work in this area.

_____ 28. Produces up to 20 copies per minute, 20,000 per month.

_____ 29. Mechanical and electronic recorders used to keep up with copier use.

_____ 30. A part of a system.

PART II: TYPES OF COPIER PROCESSES

INSTRUCTIONS: **Match five types of copier processes with the correct description.**

Types:

_____1. Electrostatic

_____2. Infrared/Thermofax

_____3. Diffusion, transfer, and stabilization process

_____4. Diazo

_____5. Digital

Descriptions:

A. The toner forms an image on the copy and produces dark black copies that look like the original. The original can be corrected or additions made without showing on the copy.

B. The original document and coated paper are exposed to ultraviolet light. Generally used for printing blueprints, because large sheets of paper may be used. Possible to use in the office, because it is cheap; however, it is very slow.

C. There are two types. One is the transfer process or xerographic process--plain-paper copiers (PPCs) are used. The photoconductor is the drum or coated metal plate, and the paper is less expensive.

The other type is the direct image process, or electrofax process, used on coated-paper copiers (PPCs). A special coating on the copy paper serves as the photoconductor. Halftones are better, in that shaded area and images are sharper. Paper is more expensive and writing on it is difficult.

D. This type is an important modern advancement. The size, shape, and contents of the copies are controlled by the user. It has many functions, such as optical scanning for computer input, printing, and facsimile transmission.

E. This process is a quick way to produce copies; however, the material to be copied must contain carbon for the process to work.

PART III: COPIER CLASSIFICATIONS

INSTRUCTIONS: **Place an A, B, C, or D in front of the characteristic(s) that match(es) the proper segment.**

A. Segment I
B. Segment II
C. Segment III
D. Segment IV

________ 1. 20 copies per minute, and approximately 20,000 copies per month.
________ 2. 51 to 90 copies per minute.
________ 3. 50 to 200,000 copies per month.
________ 4. 21 to 50 copies per minute, and 60,000 per month.
________ 5. Centralized location.
________ 6. Modularity and accessories available.
________ 7. Decentralized location.
________ 8. Many labor and productivity features are standard features; produce high quality copies.
________ 9. Many standard features, floor-console models.
________ 10. Used as sole copier with minimum of maintenance.

PART IV: COPIER FEATURES

INSTRUCTIONS: List and describe three features of copiers.

1.

2.

3.

PART V: ADVANTAGES OF USING COPIERS

INSTRUCTIONS: List five advantages of using copiers.

1.

2.

3.

4.

5.

PART VI: CONTROLLING COPIER OPERATING PROCEDURES

INSTRUCTIONS: **Describe four means of controlling copier operating procedures. Use paragraph form, correct grammar, and proper punctuation.**

1.

2.

3.

4.

PART VII: COPY PREPARATION TECHNIQUES

INSTRUCTIONS: **Prepare a document provided by your teacher, and make two copies. Correctly cut and paste any items, and also make neat corrections if necessary.**

PART VIII: COPYRIGHT USE

INSTRUCTIONS: **Write a short paragraph about how the copyright law affects you. Use paragraph form, correct grammar, and proper punctuation.**

ANSWERS TO ACTIVITIES

Activity 1

```
 MIDVOLUMECOPIER C
      O         COPY
      W       V  P
D     V    H  E  I
ELECTROSTATICPROCESS
C     L    G  T  R
E    DUMMY H  I
N     M    V  C
TONER E    O LAYOUT
R     C    L  L
A     O REDUCE
L     P    M
I  PLAINPAPERCOPIER
Z     E    C
E ENLARGE MODULARITY
D          P
 REPROGRAPHICSSYSTEM
           E
    LIGHTDARK
```

Activity 2 Evaluated to the satisfaction of the instructor.

Activity 3

1. Low-volume, Segment I
   - a. 20 copies per minute, 20,000 per month.
   - b. Decentralized location.
   - c. Used as sole copier with minimum of maintenance.
2. Mid-volume, Segment II
   - a. 21 to 50 copies per minute, 60,000 per month.
   - b. Modularity and accessories available.
3. High-volume, Segment III
   - a. 51-90 copies per minute, 50,000 to 100,000 copies per month.
   - b. Centralized location.
   - c. Many standard features, floor-console models.
4. Duplicating-volume, Segment IV
   - a. Excess of 92 copies per minute, 50,000 to 200,000 copies per month.
   - b. Centralized reproduction centers.
   - c. Many labor and productivity features are standard features; produce high-quality copies.

Activity 4

Project 1 Any ten of the following:

1. Color
2. Reduction & enlargement
3. Zoom lens
4. Automatic document feed
5. Collating
6. Automatic duplexing
7. Automatic image shift or magnification
8. Book copy mode
9. Automatic shut-off
10. Automatic staplers
11. Image retention
12. Interrupt
13. Sheet bypass
14. Folders
15. Binding
16. Automatic hole-punching
17. A combination copier-fax
18. Electronic editing

Project 2 Any three of the answers selected for Project 1. Description evaluated to the satisfaction of the instructor.

Activity 5 Any five of the following:

1. Letters and other documents can be reproduced rapidly.
2. Copies can be reproduced exactly from the original or with corrections to the original.
3. Copiers are economical for a few copies.
4. Copiers are easy to operate.
5. Color copies can be made, although it is an expensive process.
6. Company letterhead or colored paper can be used.
7. Transparencies can be prepared in some copiers.
8. Enlargement and reductions in size may be made.
9. Several different sizes of paper can be stored in some copiers, and the size of paper needed can be selected.

Activity 6 Evaluated to the satisfaction of the instructor.

Activity 7

Projects 1-2 Evaluated to the satisfaction of the instructor.

Activity 8

Project 1

The 1978 U.S. Copyright Law provides protection only from copying. It does not give an absolute monopoly on the material or preclude others from using the ideas or information. A copyright extends only to the concrete medium in which it is expressed; it does not extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery.

Project 2

Evaluated to the satisfaction of instructor.

1. Do not reproduce systematically any copyrighted item or make multiple copies for wide distribution.
2. Do not copy commercially produced performance materials of any kind without permission.
3. Try to locate the author or distributor of a copyrighted item prior to copying it; keep copies of all correspondence to substantiate a search.
4. Do not copy works and publications that are intended to be consumable--workbooks, tests, answer sheets, etc.
5. Do not copy anything if it appears that this copying will reduce the market value to the author or owner.
6. Do not copy an item to avoid its purchase.
7. Make sure that all copies of a copyrighted item include a notice of copyright.
8. Do not reproduce any copyrighted item if there is a direct or indirect commercial advantage to be gained from the copies.
9. Do not request multiple copies of published articles from your corporate library or reproduction center.

ANSWERS TO COMPETENCY TEST

Part I

1.	K	11.	C	21.	I
2.	O	12.	CC	22.	BB
3.	E	13.	AA	23.	S
4.	H	14.	V	24.	R
5.	P	15.	J	25.	A
6.	X	16.	Z	26.	M
7.	L	17.	N	27.	B
8.	T	18.	DD	28.	U
9.	F	19.	Y	29.	W
10.	G	20.	Q	30.	D

Part II

1. C
2. A
3. E
4. B
5. D

Part III

1.	A	6.	B
2.	C	7.	A
3.	D	8.	D
4.	B	9.	C
5.	C	10.	A

Part IV Evaluated to the satisfaction of the instructor.

Part V Any five of the following:

1. Letters and other documents can be reproduced rapidly.
2. Copies can be reproduced exactly from the original or with corrections to the original.
3. Copiers are economical for a few copies.
4. Copiers are easy to operate.
5. Color copies can be made, although it is an expensive process.
6. Company letterhead or colored paper can be used.
7. Transparencies can be prepared in some copiers.
8. Enlargement and reductions in size may be made.
9. Several different sizes of paper can be stored in some copiers, and the size of paper needed can be selected.

Part VI	Evaluated to the satisfaction of the instructor.
Part VII	Evaluated to the satisfaction of the instructor.
Part VIII	Evaluated to the satisfaction of the instructor.

COMPETENCY CHECKLIST

ESSENTIAL ELEMENTS: 75.87 (d)/(m)(3)(B)

The student shall be provided opportunities to identify the procedures used in operating reprographic equipment.

OBJECTIVE:	Students will demonstrate proper use of reprographic equipment and correct procedures for producing legible copies and quality documents.	MASTERY	NON-MASTERY
1.	Match terms related to copier reprographics.	______	______
2.	Describe features of the digital copier process.	______	______
3.	Identify for each segment of copier classification the features, how many copies per minute, and where used.	______	______
4.	List ten copier features and describe any three of them in paragraph form, using correct grammar and punctuation.	______	______
5.	List five advantages of using copiers.	______	______
6.	Describe in paragraph form, using correct grammar and punctuation, four methods of controlling copier operating procedures.	______	______
7.	Demonstrate correct copy preparation techniques.	______	______
8.	Discuss in paragraph form, using correct grammar and punctuation, copyright use and how it affects him/her.	______	______
		______	______
		______	______

STUDENT NAME________________________________

SUGGESTED UNIT LESSON PLAN

SECTION III: OPERATING OFFICE MACHINES

UNIT I: REPROGRAPHICS

ESSENTIAL ELEMENT: 75.87 (d)/(m)(3)(B)

ALLOCATED TIME: 5-10 Hours

UNIT OBJECTIVE: Students will demonstrate procedures and skills used in operating a fluid duplicator.

MODULE D: FLUID DUPLICATION PROCESS

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Identify terminology related to the fluid duplication process.
2. Explain the fluid duplication process and identify the parts of the fluid duplicator.
3. Identify the procedures in preparing a spirit master and a thermal master.
4. Prepare and duplicate a spirit master.
5. Prepare and duplicate a thermal master.

FOCUS: Learning the fluid duplication process applies the concepts of layout and design and basic reprographic processes.

DOMAINS: Activities and competency tests have been designed to provide learning experiences utilizing the cognitive, psychomotor, or affective domains. Activities and competency tests are coded on the Activity and Competency Test Matrices.

BASIC SKILLS: Activities and competency tests have been designed to reinforce the basic skills of reading, writing, and/or mathematics. Activities and competency tests have been coded on the Activity and Competency Test Matrices.

CONTENT OUTLINE

I. Fluid duplication process and parts/operation of the fluid duplicator

   A. Fluid duplication process

   B. Parts of the fluid duplicator

   C. Fluid duplucator operation

II. Procedures in preparing spirit and thermal masters

   A. Spirit master

   B. Thermal master

SUGGESTED TEACHER ACTIVITIES

General Teacher Preparation

1. Preview unit.
2. Review unit objectives.
3. Make instructional analysis.
4. Assess student learning needs.
5. Decide on lesson domain: cognitive, psychomotor, or affective domain.
6. Select instructional materials based on instructional analysis and student learning needs.
7. Select instructional strategies based on lesson content and student learning needs.
8. Prepare lesson plans from the unit lesson.
9. Prepare additional instructional material.
10. Reserve necessary media and equipment.

Teacher Presentation

1. Present student objectives.
2. Establish rapport with students.
3. Review lesson objectives with students.
4. Relate lesson to prior or future learning.
5. When appropriate, encourage student interaction through questioning, discussions, or some other strategy.
6. Emphasize the value/importance of the unit or activity.
7. Allow time for closure of a lesson.

Reteach Activities

1. Identify area(s) of weakness from results of evaluation.
2. Select unit activities not previously used.
3. Use additional resources and/or create materials based on student learning needs.
4. Use a different teaching strategy in reteaching.
5. Retest.

Specific Teacher Activities

1. Design a bulletin board about fluid duplication.
2. Use this unit to better acquaint the students with the equipment so they will gain confidence in their abilities to use the wide variety of equipment available.
3. Provide students with projects that will be used. These may be solicited from teachers or the administration, or have the students prepare materials for you.
4. Prepare a laminated poster which describes how to operate the fluid duplicator. Hang the poster on the wall by your fluid duplicator.
5. Discuss the various parts of a spirit master set, and compare them with a thermal master.
6. Demonstrate how to insert a spirit master into the equipment being used and how to properly make corrections.
7. Demonstrate how to operate the fluid duplicator, reinforcing the names of the various parts of the machine and their functions.
8. Demonstrate how to prepare a thermal master and how to operate a thermofax.

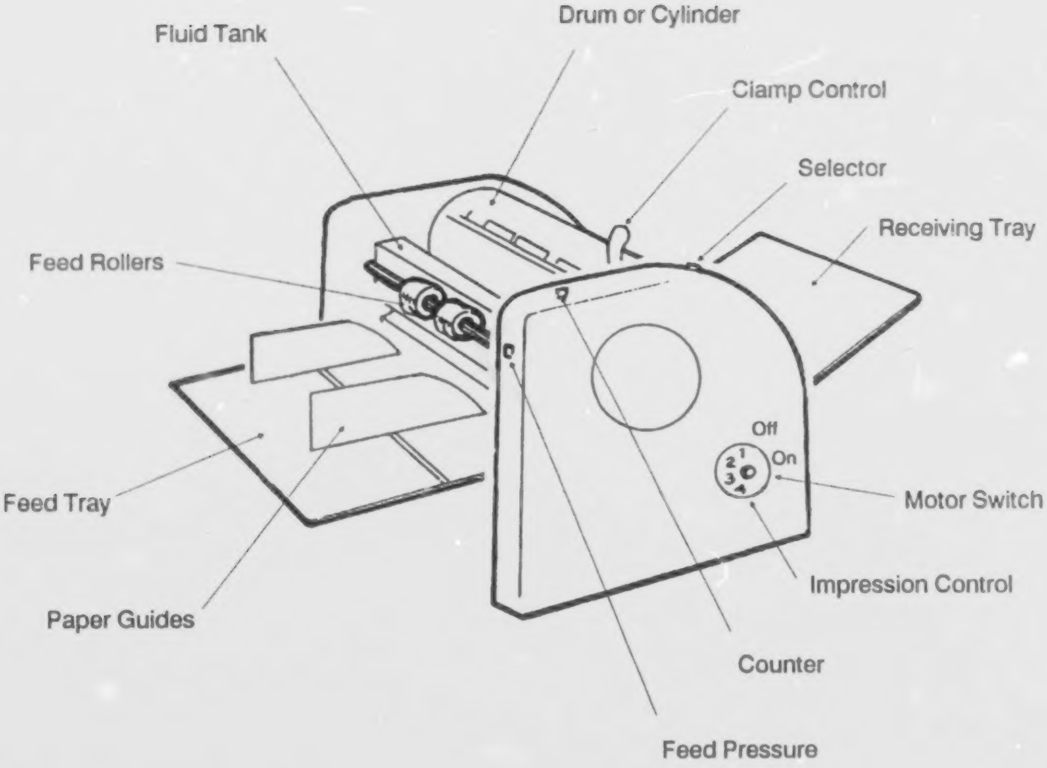
ACTIVITY MATRIX

Activities	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
1	X			X		
2 Project 1	X				X	
Project 2	X				X	
3 Project 1	X				X	
Project 2	X				X	
Project 3	X				X	
Project 4	X				X	
4 Project 1	X	X			X	
Project 2	X	X			X	
5 Project 1	X	X			X	
Project 2	X	X			X	

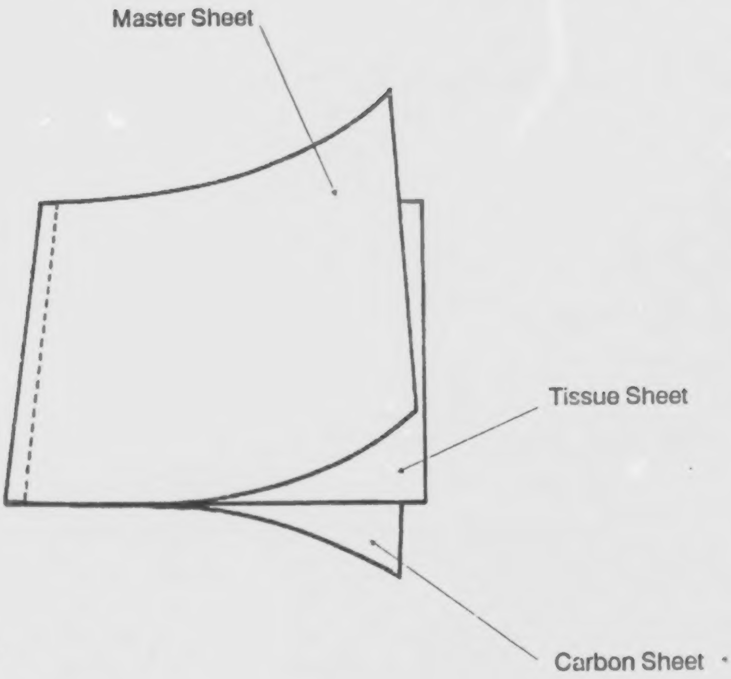
COMPETENCY TEST MATRIX

Parts	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
I	X			X		
II Project 1	X			X		
Project 2	X			X		
III Project 1	X			X		
Project 2	X			X		
Project 3	X				X	
Project 4	X			X		
IV Project 1	X	X			X	
Project 2	X	X			X	
Project 3	X	X			X	
V	X	X			X	

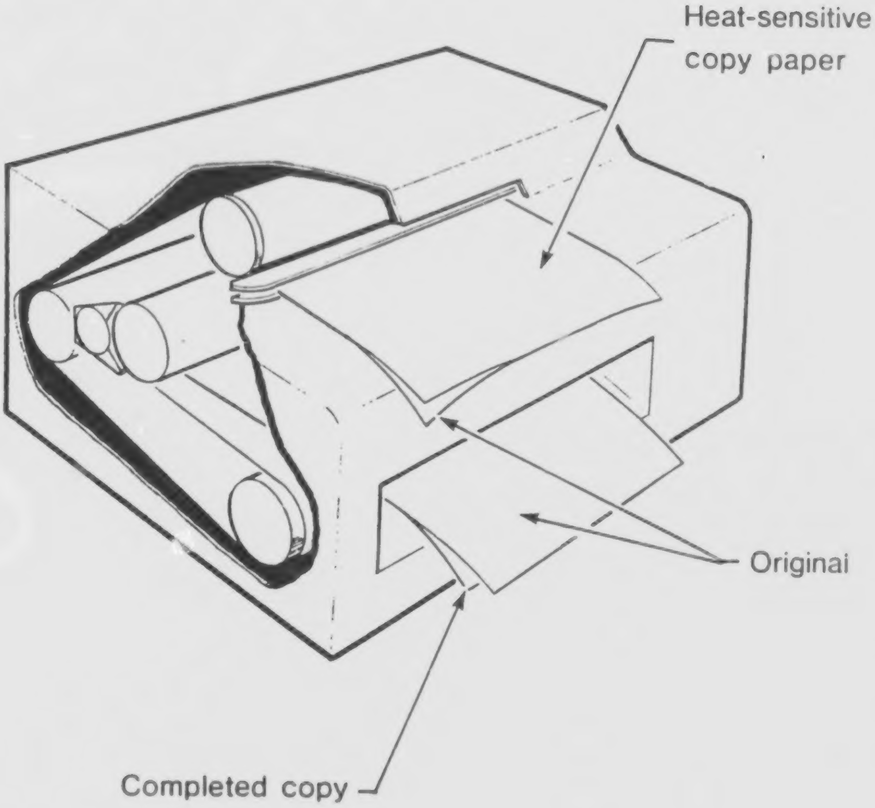
HANDOUT 1: FLUID DUPLICATOR


Fluid Tank
Drum or Cylinder
Clamp Control
Selector
Receiving Tray
Feed Rollers
Off
On
1
2
3
4
Motor Switch
Feed Tray
Impression Control
Paper Guides
Counter
Feed Pressure

HANDOUT 2: SPIRIT MASTER


Master Sheet
Tissue Sheet
Carbon Sheet

HANDOUT 3: THERMAL PROCESS


Heat-sensitive copy paper
Original
Completed copy

COMPETENCY TEST

PART I: TERMINOLOGY

INSTRUCTIONS: **Match the terms related to the fluid duplication process to the correct definition by placing the letter in the space provided.**

A. Clamp control
B. Counter
C. Cylinder
D. Feed pressure
E. Feed rollers
F. Feed tray
G. Fluid tank
H. Impression control
I. Impression roller
J. Moistening

_______ 1. The roller under the cylinder.

_______ 2. Dial that shows the number of copies being made.

_______ 3. Rollers that rest on top of the paper being fed into the machine.

_______ 4. Tank that holds the fluid that wets the paper going into the machine.

_______ 5. The roller which dampens the paper to be copied.

_______ 6. Lever that is used to open and close the lock which holds the caster against the cylinder.

_______ 7. The drum-like part which holds the master.

_______ 8. Lever that controls the pressure of the roller to handle different weights of paper.

_______ 9. Tray where the paper is stacked to be fed into the machine.

_______ 10. Lever or knob that controls the lightness and darkness of the printed copy.

PART II: FLUID DUPLICATION PROCESS

Project 1

INSTRUCTIONS: Place an X beside those steps involved in fluid duplicator operations.

_______ 1. The machine is primed.

_______ 2. The drum of the machine is removed.

_______ 3. The fluid tank is filled if low.

_______ 4. The paper is fanned.

_______ 5. The master is attached to the impression control.

_______ 6. The master is never removed from the drum.

_______ 7. The counter on the fluid duplicator is set.

PART II (Continued)

Project 2

INSTRUCTIONS: **Fill in the blank with the correct word or words. You may use the same word twice. Some words will not be used.**

Protection sheet
Fluid
Receiving tray
Adjustments
Duplicated
Cylinder
Clamp
Fluid tank
Carbon side up
Feed tray
Motor switch
Counter
Four

There are ________________________ basic steps involved in operating a fluid duplicator. The first step is getting the machine ready. To get the machine ready, you must check the fluid. If needed, add fluid to the ________________________. Paper should be placed in the ________________________, and the receiving tray needs to be positioned to catch the duplicated copies. When putting the master sheet on the ________________________, the clamp is used to hold the master on the cylinder. The master sheet should be placed ________________________. A few test copies should be run to check the fluid and to make any ________________________. After all the adjustments are made, set the ________________________, and run as many copies as needed. When the job is finished, turn off the paper feed and the ____________________. The master sheet needs to be removed from the ________________________. If the master sheet is to be filed, attach the ________________________ to the master sheet.

PART III: SPIRIT MASTER AND THERMAL MASTER

Project 1

INSTRUCTIONS: Write the letter of the answer that correctly completes the following statements.

_______ 1. The white sheet in the spirit master which you write or type on is called the:

A. Master sheet.
C. Carbon sheet.
B. Protection sheet.

_______ 2. The sheet which is coated with a wax-like dye is called the:

A. Carbon sheet.
C. Master sheet.
B. Protection sheet.

_______ 3. The tissue sheet which is used to keep the master free from smudges is called the:

A. Protection sheet.
C. Master sheet.
B. Carbon sheet.

_______ 4. When typing a spirit master, you should:

A. Type on the protection sheet.
C. Keep the protection sheet in the pack.
B. Take the protection sheet out.

_______ 5. When typing on a spirit master, you should leave at least:

A. 1/8-inch space at the top and bottom.
C. 1/2-inch space at the top and bottom.
B. 1/4-inch space at the top and bottom.

_______ 6. The thin white sheet in the thermal master onto which the paste-up master is copied is called the:

A. Master sheet.
C. Carbon sheet.
B. Protection sheet.
D. Jacket.

PART III (Continued)

Project 1 (Continued)

_______ 7. The backing sheet which holds the thermal master together is called the:

A. Master sheet.
B. Protection sheet.
C. Carbon sheet.
D. Jacket.

_______ 8. The thin, coated sheet with a wax-like dye which transfers to the thermal master sheet is called the:

A. Master sheet.
B. Protection sheet.
C. Carbon sheet.
D. Jacket.

_______ 9. The tissue used to keep the master sheet free from smudges is called the:

A. Master sheet.
B. Protection sheet.
C. Carbon sheet.
D. Jacket.

_______ 10. The thermofax process:

A. Is a wet chemical process.
B. Operates on the principle that dark objects will take in more heat than light objects.
C. Allows a paste-up master to be used.
D. Is both B and C.

PART III (Continued)

Project 2

INSTRUCTIONS: Place an X by the steps involved in typing a spirit master.

_______ 1. Set the counter.

_______ 2. Feed the spirit master into the typewriter.

_______ 3. Set the margins and tabs.

_______ 4. Correct typing errors.

_______ 5. Prime the machine.

_______ 6. Proofread.

_______ 7. Fill the fluid tank when it becomes low.

_______ 8. Place the original or paste-up master faceup between the carbon sheet and jacket.

_______ 9. Remove the spirit master from the cylinder (drum).

_______ 10. Place the protection sheet between the master sheet and the carbon sheet.

Project 3

INSTRUCTIONS: Briefly explain how to correct an error on a master sheet.

PART III (Continued)

Project 4

INSTRUCTIONS: Place an X by the steps involved in making a thermofax master.

_______ 1. Remove the protection sheet.

_______ 2. Prime the machine.

_______ 3. Adjust the heat setting.

_______ 4. Insert the master.

_______ 5. Attach master.

_______ 6. Remove the carbon sheet.

_______ 7. Remove the jacket.

_______ 8. Place the original or paste-up master faceup between the carbon sheet and jacket.

_______ 9. Set the counter.

_______ 10. Correct typing errors.

PART IV: PREPARING AND DUPLICATING A SPIRIT MASTER

Project 1

INSTRUCTIONS: **Divide a spirit master in half. Type the following memo. Leave one-inch top and side margins. Double-space the heading, and triple-space between the subject line and the body.**

MEMO

TO: All Department Heads

FROM: John Doe

DATE: October 12, 19--

RE: STAFF MEETING

On November 12, there will be a meeting of all department heads. Attached is the agenda for the meeting.

xxx

Attachment

PART IV (Continued)

Project 2

INSTRUCTIONS: Divide a spirit master in half. Center the following agenda horizontally and vertically. On the body of the agenda, center the longest line for the left margin.

AGENDA FOR STAFF MEETING

November 12, 19--

BOARDROOM

I. Introduction of New Department Head
John Smith

II. Price Increases

III. Christmas Sales and Procedures

IV. Adjournment

PART IV (Continued)

Project 3

INSRUCTIONS: **Divide a spirit master in half. Type the following memo, making all corrections. Leave one-inch top and side margins. Double-space the heading, and triple-space between the subject line and the body.**

MEMO

TO: All Sales Personnel

FROM: John Doe

DATE: November 1, 19--

RE: Christmas Shoppers

Christmas is once again upon us, and we will be experiencing one of our busiest times. Profits will be up, but so will our losses. Shoplifting is one of our biggest problems this time of year. To keep our losses at a minimum, keep a watchful eye on customers while you are helping a customer.

xx

PART V: THERMAL MASTER

INSTRUCTIONS: **Prepare a thermal master from the materials provided by your teacher. Run five (5) copies.**

ANSWERS TO ACTIVITIES

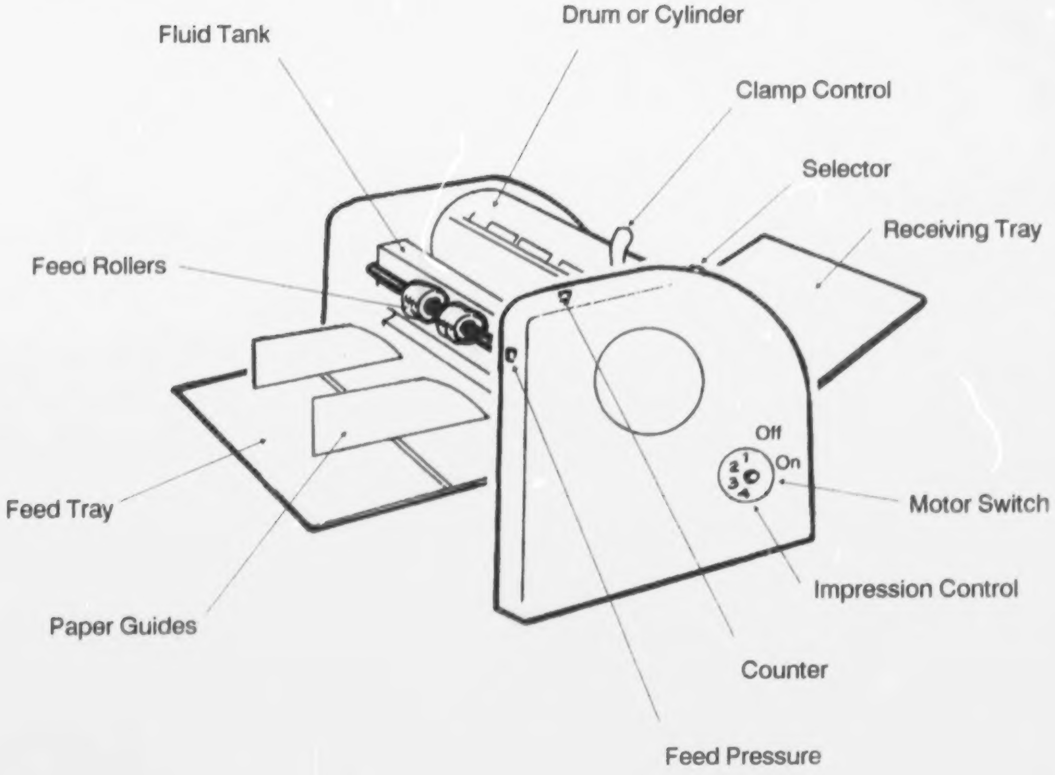
Activity 1

```
 IMPRESSIONROLLER
 M
 P RECEIVINGTRAY
 R          H
 E  F  D  F E M
 S  E  U  E R A
 S  E  P  D M S
 I  D  L  P A T
MOISTENINGROLLER
 N  R  C  E M R
 C  A  A  S A
 O  Y  T  S S
 N     I  U T
 T  COUNTER E
 R     G  E R
 O     F
 L    CLAMPCONTROL
       U
       I
    FEEDROLLERS
```

Activity 2

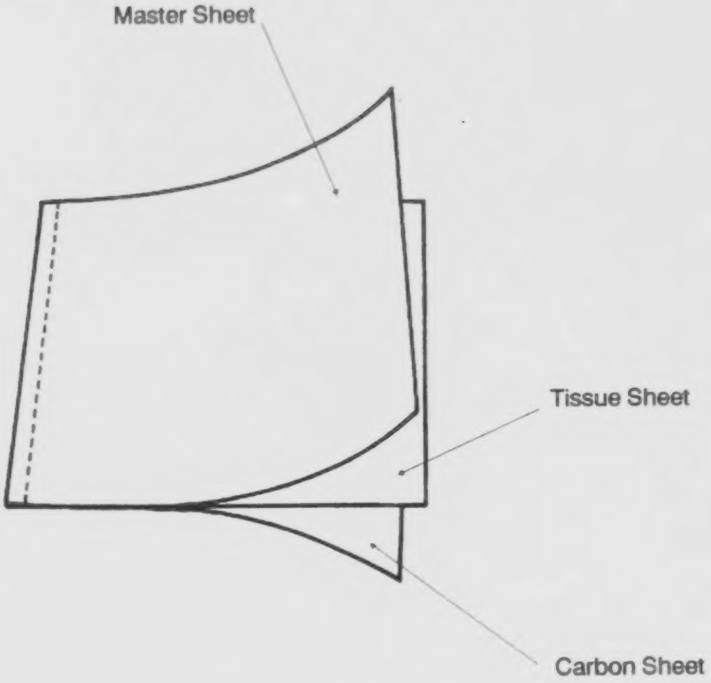
<u>Project 1</u> Evaluated to the satisfaction of the instructor.

Project 2


Drum or Cylinder
Fluid Tank
Clamp Control
Selector
Receiving Tray
Feed Rollers
Off
On
1
2
3
4
Motor Switch
Feed Tray
Impression Control
Paper Guides
Counter
Feed Pressure

Activity 3

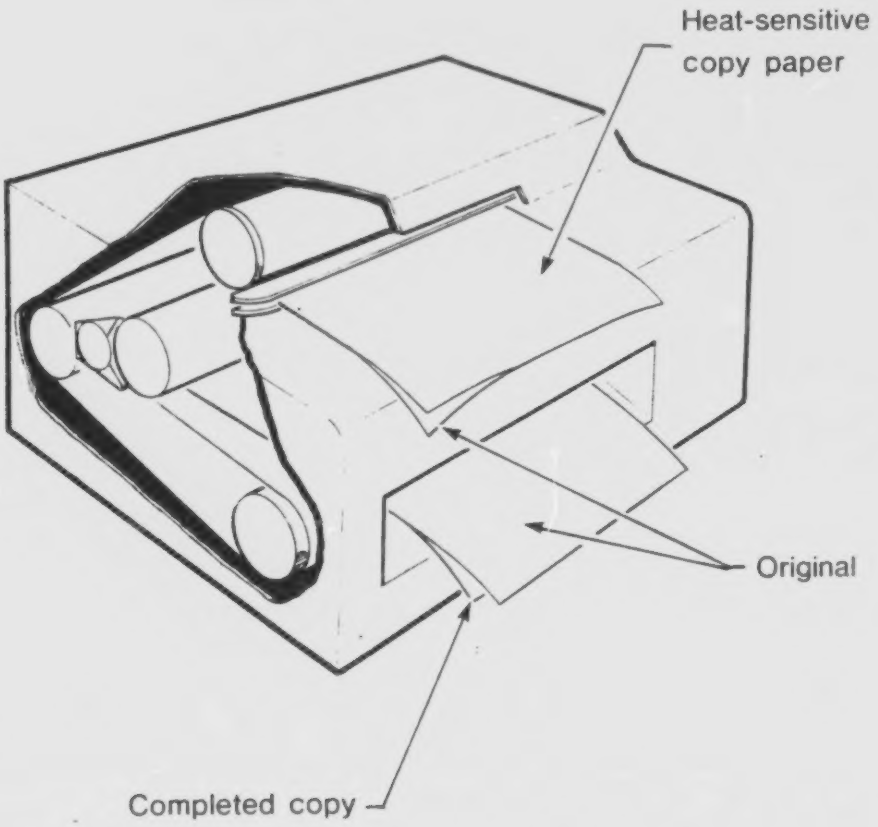
Project 1


Master Sheet
Tissue Sheet
Carbon Sheet

Project 2

1. Clean the typing element or printhead on the printer.
2. Take out the protection sheet from the master assembly.
3. Insert the spirit master in the typewriter or in the printer with the open side up.
4. Set margins for any keying that is necessary, leaving at least 1/2 inch at the top and the bottom.
5. Key in the document.
6. Print the document if you are using a computer.

Project 3



Project 4

1. Remove protection sheet from thermal master.
2. Place original or paste-up master faceup between the carbon sheet and the jacket.
3. Adjust the heat setting for making the thermal master (see operations manual).
4. Make test copies for darkness and lightness.
5. Insert master into the thermofax opening.
   - (a) Once inside, the master is exposed to light.
   - (b) The light generates heat which contacts with the dark portions on the original, producing a reproducing master.
6. Remove the carbon sheet.
7. Do not remove the jacket.
   - (a) When duplicating, fold the jacket in half, and use it to pad the master on the drum for better copy.
   - (b) For better copies after the master has become weak, pad the master by placing white paper between the drum and the master.

Activities 4 and 5 Evaluated to the satisfaction of the instructor.

ANSWERS TO COMPETENCY TEST

Part I

1. I
2. B
3. E
4. G
5. J
6. A
7. C
8. D
9. F
10. H

Part II

Project 1

1. X
2.
3. X
4. X
5. X
6.
7. X

Project 2

1. Four
2. Fluid tank
3. Feed tray
4. Cylinder
5. Carbon side up
6. Adjustments
7. Counter
8. Motor switch
9. Cylinder
10. Protection sheet

Part III

Project 1

1. A
2. A
3. A
4. B
5. C
6. A
7. D
8. C
9. B
10. D

Project 2

1.
2. X
3. X
4. X
5.
6. X
7.
8.
9.
10. X

Project 3 Evaluated to the satisfaction of the instructor.

Project 4

1. X
2.
3. X
4. X
5.
6. X
7.
8. X
9.
10.

Parts IV-V Evaluated to the satisfaction of the instructor.

COMPETENCY CHECKLIST

ESSENTIAL ELEMENTS: 75.87 (d)/(m)(3)(B)

The student will be provided opportunities to identify the procedures used in operating reprographic equipment.

		MASTERY	NON-MASTERY
OBJECTIVE:	**Students will demonstrate procedures and skills used in operating a fluid duplicator.**		
	MODULE D: FLUID DUPLICATION PROCESS		
1.	**Identify terminology related to the fluid duplication process.**	______	______
2.	**Explain the fluid duplication process and identify the parts of the fluid duplicator.**	______	______
3.	**Identify the procedures in preparing a spirit master and a thermal master.**	______	______
4.	**Prepare and duplicate a spirit master.**	______	______
5.	**Prepare and duplicate a thermal master.**	______	______

STUDENT NAME____

SUGGESTED UNIT LESSON PLAN

SECTION III: OPERATING OFFICE MACHINES

UNIT I: REPROGRAPHICS

ESSENTIAL ELEMENTS 75.87 (d)/(m)(3)(B)

ALLOCATED TIME: 5-10 Hours

UNIT OBJECTIVE: Students will be able to operate an electronic stencil maker and a stencil duplicator.

MODULE E: STENCIL DUPLICATION

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Match terms relating to stencil duplication with their correct definitions.
2. Describe the stencil duplicator operation.
3. Describe the parts of a stencil pack and how to use the stencil guide marks.
4. Place the steps for preparing and correcting a stencil in the proper order.
5. Describe and demonstrate various styli and drawing procedures.
6. List the procedures for operating an electronic stencil maker.
7. Describe causes of and remedies for stencil duplication problems.
8. Demonstrate the ability to:
    - a. Prepare a stencil.
    - b. Operate an electronic stencil maker.
    - c. Operate a stencil duplicator.
    - d. Clean and change color.

FOCUS:	Many reprographic machines are no longer used in offices today; however, learning stencil duplication is just one level of reprographics that can be applied to higher-level office machines.
DOMAINS:	Activities and competency tests have been designed to provide learning experiences utilizing the cognitive, psychomotor, or affective domains. Activities and competency tests are coded on the Activity and Competency Test Matrices.
BASIC SKILLS:	Activities and competency tests have been designed to reinforce the basic skills of reading, writing, and/or mathematics. Activities and competency tests are coded on the Activity and Competency Test Matrices.

CONTENT OUTLINE

I. Stencil duplicator operation
  A. Preparing the machine
  B. Placing the stencil on the machine
  C. Running the copies
  D. Completing the job
  E. Cleaning and changing color
II. Stencil pack and guide marks
  A. Parts of the stencil pack
  B. Stencil guide marks
III. Preparing a stencil and making corrections
  A. Preparing a stencil
  B. Making typewriter corrections on the stencil
IV. Using styli and drawing procedures
  A. Types of styli
  B. Drawing on a stencil
V. The electronic stencil maker
  A. Description
  B. Operation
VI. Problems with stencil duplication
  A. Poor copy
  B. Multiple sheets
  C. Skip feeding
  D. Backside of copy smudged
  E. Streaking and spots
  F. Half-size letters on copy
  G. Copy too high or too low

SUGGESTED TEACHER ACTIVITIES

General Teacher Preparation

1. Preview the unit.
2. Review unit objectives.
3. Make instructional analysis.
4. Assess student learning needs.
5. Decide on lesson domain: cognitive, psychomotor, or affective domain.
6. Select instructional materials based on instructional analysis and student learning needs.
7. Select instructional strategies based on lesson content and student learning needs.
8. Prepare lesson plans from the unit lesson.
9. Prepare additional instructional material.
10. Reserve necessary media and equipment.

Teacher Presentation

1. Present student objectives.
2. Establish rapport with students.
3. Review lesson objectives with students.
4. Relate lesson to prior or future learning.
5. When appropriate, encourage student interaction through questioning, discussions, or some other strategy.
6. Emphasize the value/importance of the unit or activity.
7. Allow time for closure of a lesson.

Reteach Activities

1. Identify area(s) of weakness from results of evaluation.
2. Select unit activities not previously used.
3. Use additional resources and/or create materials based on student learning needs.
4. Use a different teaching strategy in reteaching.
5. Reteach.

Specific Teaching Suggestions

1. Vary the information presented according to the equipment used in your classroom.
2. Design a bulletin board about duplication.
3. Have students work on projects that will be used, not projects just for practice. Secure materials that other teachers need reproduced.
4. Secure several pictures for students to trace. Have a specific picture for Part V of the competency test.
5. Have students bring color books or easy pictures.
6. Prepare a poster describing how to operate the stencil duplicator, and hang the poster on the wall by your duplicator.
7. Demonstrate how to operate the stencil duplicator, pointing out the various parts and the steps you use. Have the students follow along with their list of steps.
8. Explain the types of styli and how to draw on a stencil.
9. Show the students the parts of the stencil.
10. Demonstrate how to operate an electronic stencil maker.
11. Explain the problems associated with stencil duplication.
12. Vary the way you utilize the competency test:
    - You may wish to give each part of the test after completion of each activity.
    - Use the test as an open-book assignment.
    - Vary the presentation of the test according to the individual student needs. Some may do better if the test is given orally.
    - If you have added materials and information to the unit, add a means of evaluation.
    - You may want to test the students as to how they operate the stencil duplicator.

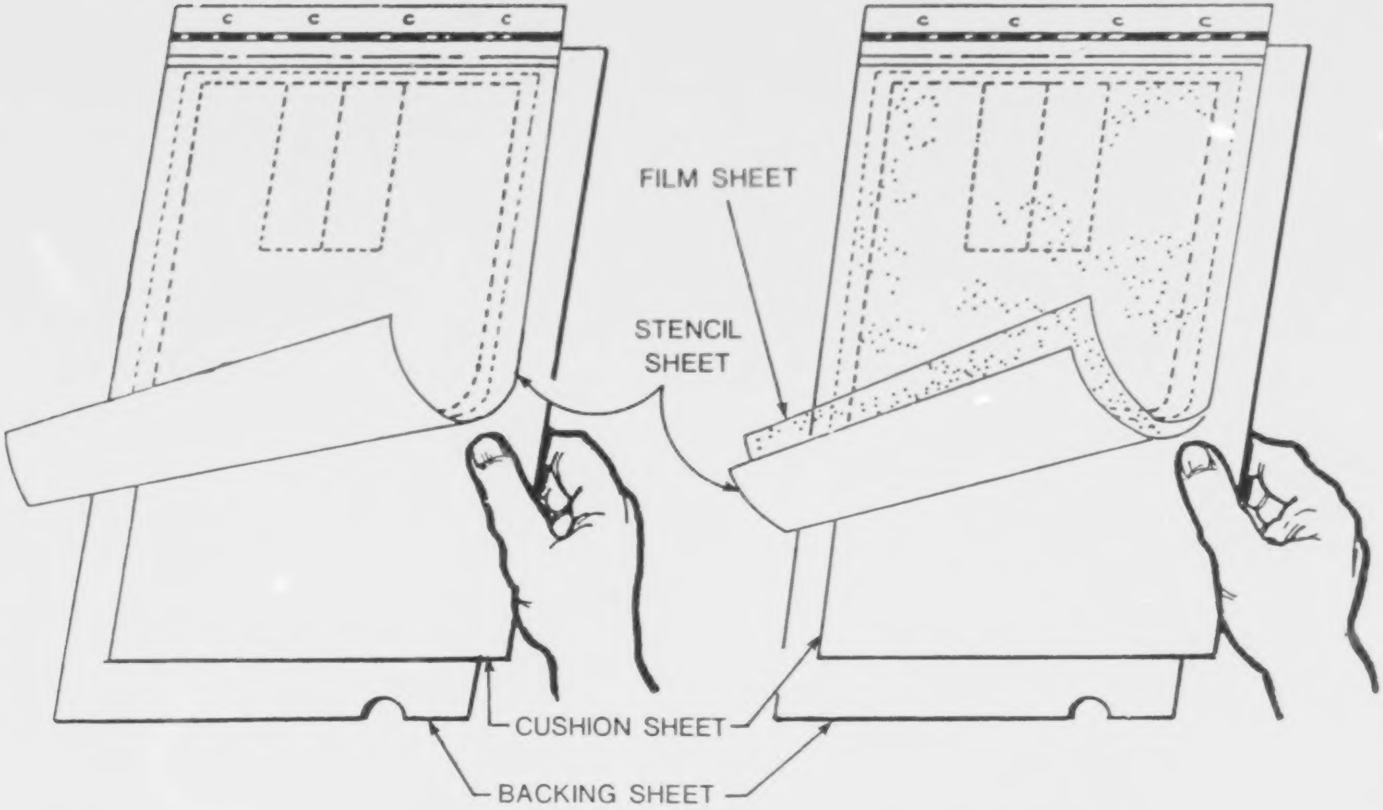
ACTIVITY MATRIX

Activities	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
1	X			X		
2	X				X	
3 Project 1	X				X	
Project 2	X				X	
4 Project 1	X				X	
Project 2	X				X	
5 Project 1	X				X	
Project 2	X				X	
6	X				X	
7	X				X	
8 Project 1	X	X			X	X
Project 2	X	X			X	X
Project 3	X	X			X	
Project 4	X	X			X	
Project 5	X	X			X	

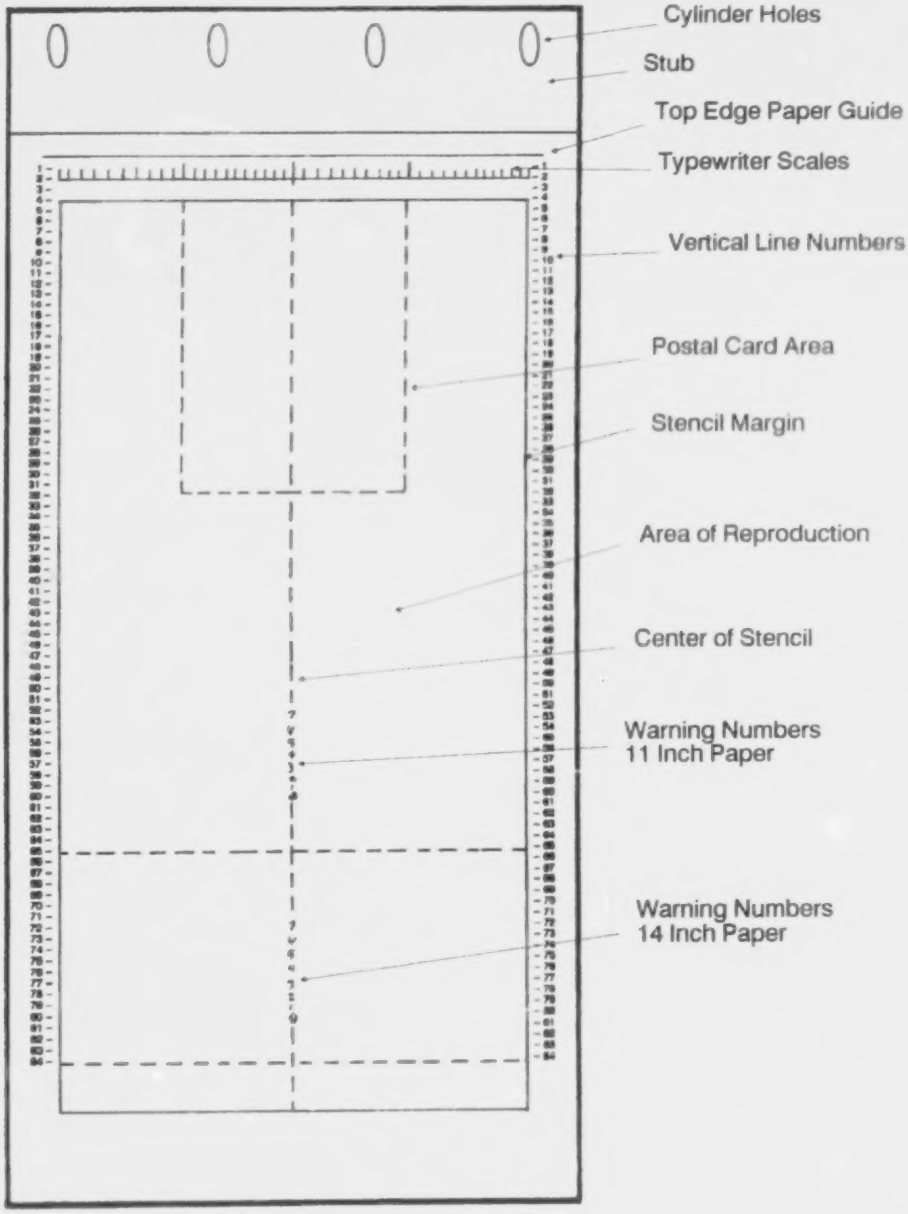
COMPETENCY TEST MATRIX

Parts		**Domains**			**Basic Skills**		
		Cognitive	**Psycho-motor**	**Affective**	**Reading**	**Writing**	**Math**
I		X			X		
II		X			X		
III		X				X	
IV	Project 1	X			X		
	Project 2	X				X	
V	Project 1	X				X	
	Project 2	X	X			X	
VI	Project 1	X				X	
	Project 2	X			X		
VII		X			X		
VIII		X	X			X	

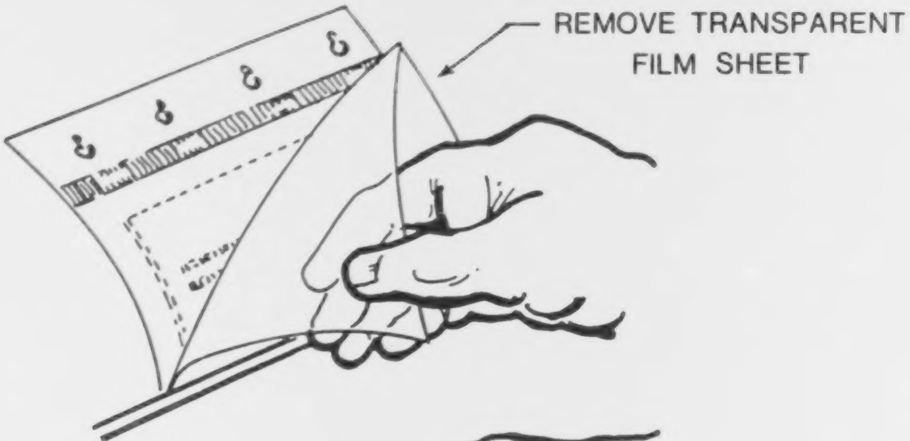
HANDOUT 1: STENCIL PACK

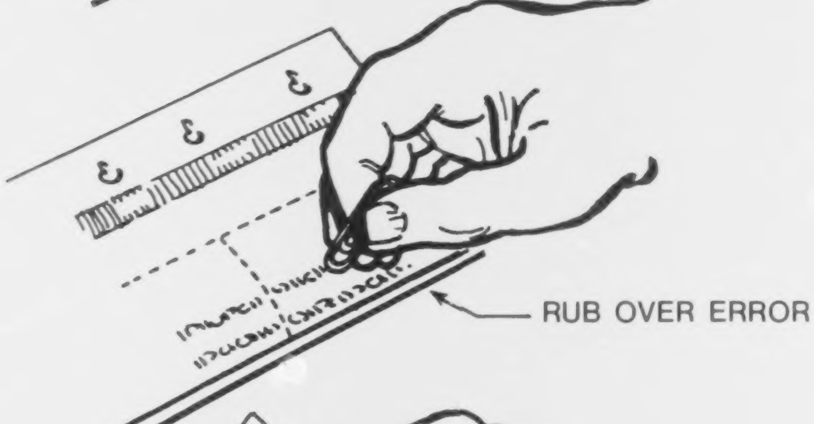

FILM SHEET
STENCIL SHEET
CUSHION SHEET
BACKING SHEET

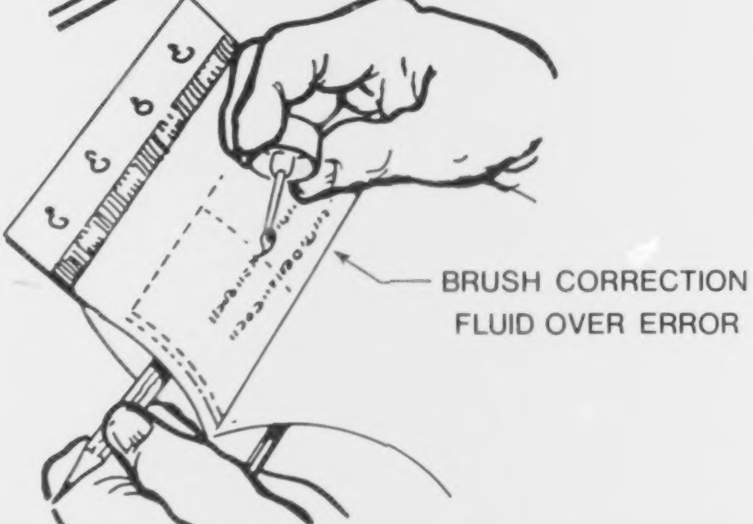
HANDOUT 2: STENCIL GUIDE MARKS


Cylinder Holes
Stub
Top Edge Paper Guide
Typewriter Scales
Vertical Line Numbers
Postal Card Area
Stencil Margin
Area of Reproduction
Center of Stencil
Warning Numbers 11 Inch Paper
Warning Numbers 14 Inch Paper

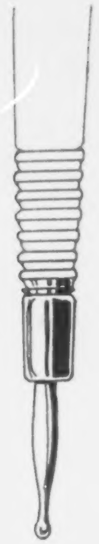
HANDOUT 3: STENCIL CORRECTION


REMOVE TRANSPARENT FILM SHEET

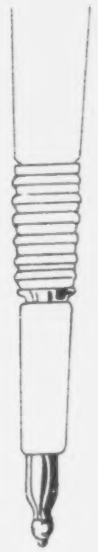

RUB OVER ERROR


BRUSH CORRECTION FLUID OVER ERROR

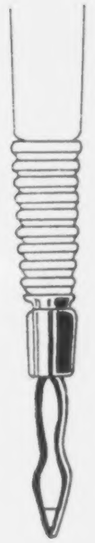
HANDOUT 4: TYPES OF STYLI



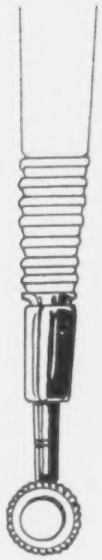
1. Ballpoint



2. Rollpoint

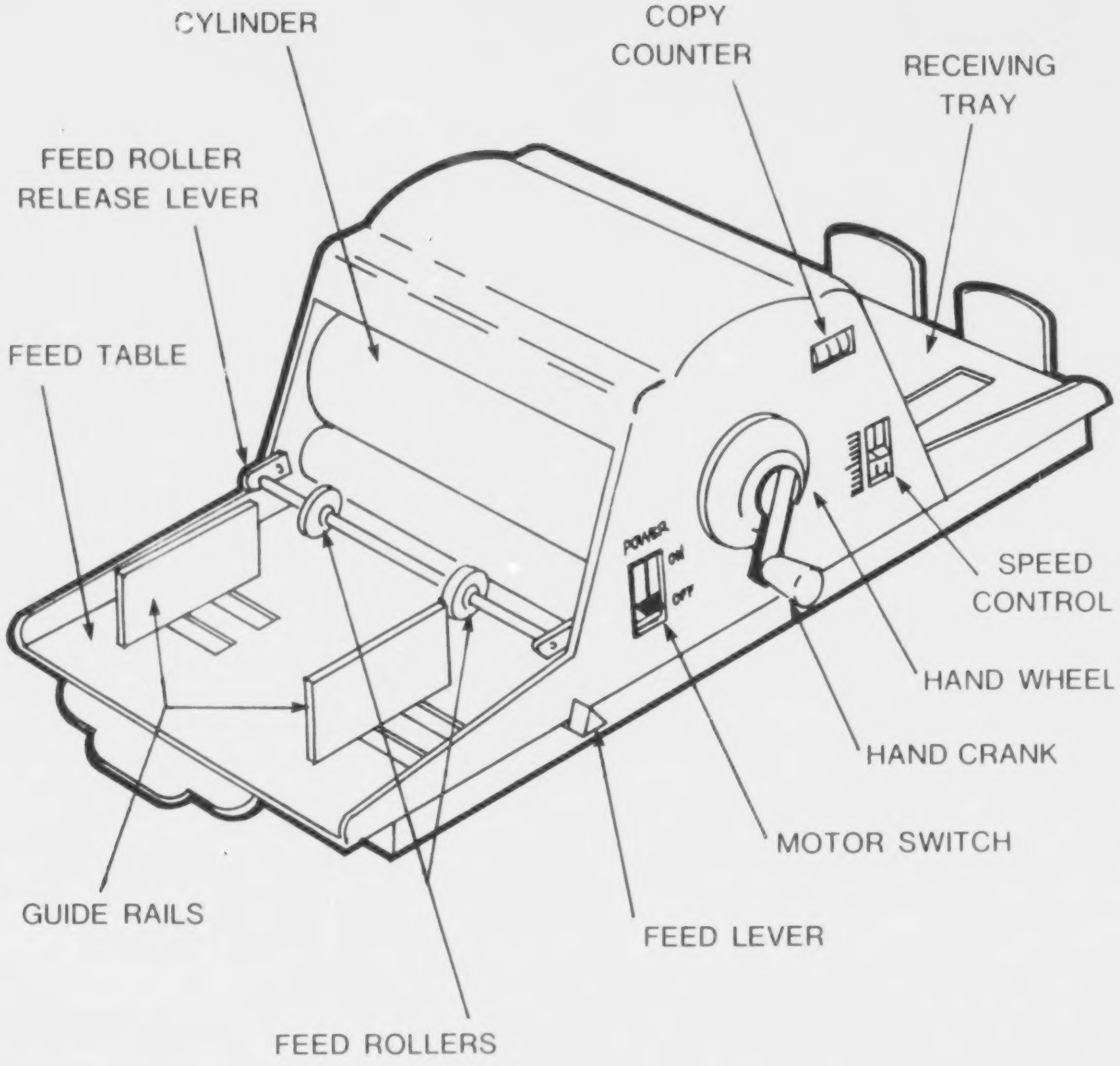


3. Wire-Loop



4. Wheel

HANDOUT 5: THE STENCIL DUPLICATOR


CYLINDER
COPY COUNTER
RECEIVING TRAY
FEED ROLLER RELEASE LEVER
FEED TABLE
POWER
ON
OFF
SPEED CONTROL
HAND WHEEL
HAND CRANK
MOTOR SWITCH
GUIDE RAILS
FEED LEVER
FEED ROLLERS

COMPETENCY TEST

PART I: TERMINOLOGY

INSTRUCTIONS: **Match the correct term related to stencil duplication to the correct definition by placing the letter in the space at the left.**

A. Elite
B. Margins
C. Pica
D. Ribbon control
E. Rollpoint stylus
F. Stencil sheet
G. Cushion sheet
H. Backing sheet
I. Film sheet
J. Vertical
K. Stencil guide marks
L. Stencil position
M. Stylus
N. Warning numbers
O. Ballpoint stylus
P. Wheel stylus

_______ 1. A tool used for writing, signing names, and freehand drawing.

_______ 2. One of the ribbon controls on a typewriter.

_______ 3. Markings on the stencil sheet.

_______ 4. Cardboard-like sheet behind the cushion sheet.

_______ 5. Twelve (12) spaces to an inch on a typewriter

_______ 6. Ten (10) spaces to an inch on a typewriter.

_______ 7. A machine part which controls the printing on a typewriter.

_______ 8. A wax-coated tissue from which copies are duplicated.

_______ 9. Numbers which tell how many lines are left on a page.

_______ 10. Straight up and down.

_______ 11. A tool used for detailed artwork.

_______ 12. A tool used for drawing lines.

_______ 13. A clear sheet put over the stencil sheet.

_______ 14. A sheet between the stencil sheet and backing sheet which softens the typewriter keystrokes to keep the stencil sheet from tearing.

_______ 15. The blank spaces around writing or printing on a page.

_______ 16. A tool used to handwrite or trace designs on a stencil sheet.

PART II: STENCIL DUPLICATOR OPERATIONS

INSTRUCTIONS: **Match the following machine parts with their functions. Place the correct letter in the space provided.**

A. Copy counter
B. Cylinder
C. Feed lever
D. Feed rollers
E. Feed roller release lever
F. Feed table
G. Guide rail
H. Hand crank
I. Handwheel
J. Motor switch
K. Receiving tray
L. Speed control

_______ 1. Shows the number of copies being duplicated.

_______ 2. Controls the speed of the materials being duplicated on the electric duplicator.

_______ 3. Releases the feed rollers.

_______ 4. Feeds the paper manually.

_______ 5. Starts and stops motor-driven machines.

_______ 6. Holds the duplicated copies.

_______ 7. Part on manual duplicators which feeds the paper to be duplicated into the machine.

_______ 8. Holds the paper to be duplicated.

_______ 9. Holds the paper in place on the feed table.

_______ 10. Draws the paper into the machine.

_______ 11. Drops the feed rollers onto the paper as it is fed into the machine.

_______ 12. Drum-like part of the machine that holds the stencil in place during duplication.

PART III: STENCIL PACK

INSTRUCTIONS: List and describe the parts of a stencil pack.

1.

2.

3.

4.

PART IV: PREPARING AND CORRECTING STENCILS

Project 1

INSTRUCTIONS: **Place the steps of keying in a stencil in their correct order by putting letters A through F in the spaces provided.**

_______ 1. Place a cushion sheet between the stencil and the hard backing sheet.

_______ 2. Proofread the typed stencil.

_______ 3. Set the ribbon control.

_______ 4. Correct any errors.

_______ 5. Remove the stencil from the typewriter/printer.

_______ 6. Place the stencil pack in the typewriter/printer.

Project 2

INSTRUCTIONS: **List the four steps needed to correct an error on a stencil.**

1.

2.

3.

4.

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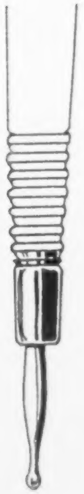
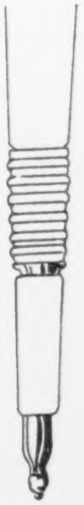
PART V: STYLI AND DRAWING PROCEDURES

Project 1

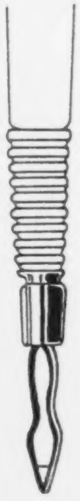
INSTRUCTIONS: **Identify each of the following styli, and then briefly explain the procedure(s) for which each is used.**



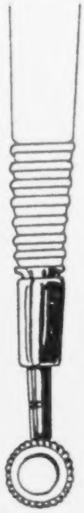
1. ______________



2. ______________



3. ______________



4. ______________

PART V (Continued)

Project 2

INSTRUCTIONS: Use the various styli to draw the picture that your instructor has provided.

PART VI: ELECTRONIC STENCIL MAKER

Project 1

INSTRUCTIONS: **Define electronic stencil maker.**

Project 2

INSTRUCTIONS: **Place an X by the steps involved in using an electronic stencil maker.**

_______ 1. Prepare a layout master.

_______ 2. Place the original copy on one side of the drum.

_______ 3. Place an electronic stencil on the other side of the drum.

_______ 4. Place the drum at the start, and press the ON button.

_______ 5. Peel off the backing sheet.

_______ 6. Allow 4 to 12 minutes for the machine to make a stencil.

PART VII: CAUSES OF AND REMEDIES FOR STENCIL DUPLICATION

INSTRUCTIONS: **Write the letter of the answer that correctly completes the following statements.**

_______ 1. If you produce a poorly duplicated copy, you should:

A. Put more ink in the machine.

B. Fan the copy paper.

C. Check or clean the feeder parts.

_______ 2. If the duplicator is feeding multiple sheets, you should:

A. Put more ink in the machine.

B. Fan copy paper, or check feeding mechanism.

C. Move guide rails on the feed tray.

_______ 3. If the duplicator is skip feeding, you should:

A. Clean the ink off the stencil.

B. Check, clean, and/or replace the feeder parts.

C. Rub your thumb across and down the stencil.

_______ 4. If the duplicator is causing streaks, you should:

A. Move the vertical placement lever.

B. Replace feeder parts.

C. Clean feed wheels and rollers.

_______ 5. If the duplicated copy is too high or too low, you should:

A. Move the vertical placement lever.

B. Rub your thumb across and down on the stencil.

C. Clean the feed wheels.

PART VIII: PREPARING STENCILS AND OPERATING THE STENCIL DUPLICATOR

INSTRUCTIONS: **Prepare a guide copy for the following income and expense statement. Duplicate 10 copies.**

FRIENDLY VALLEY SAVINGS AND LOAN ASSOCIATION

19-- Income and Expense Statement

Gross operating earnings:	
Interest on loans	$ 926,000
Interest and dividends on securities	894,000
Fees and commissions	513,000
Total earnings	$ 2,333,000
Operating expenses	
Salaries	438,000
Taxes and assessments	258,000
All other current expenses	135,000
Total operating expenses	$ 831,000
Net Current Earnings	$ 1,502,000

ANSWERS TO ACTIVITIES

Activity 1

```
MARGINS
   U            B
  RIBBONCONTROL A
   D            C
 STENCILGUIDEMARKS
   R         O  I
PICA FILMSHEET  N
   I      A  O  G
   L  CYLINDER  S
  F       D  S  H
  E       C  W  E
 FEEDROLLER  I  E
  D       A  T  T
  L S     N  C
 VERTICAL K  H
  V Y          E
WHEELSTYLUS    L
  R U          I
    STENCILSHEET
               E
```

Activity 2 Evaluated to the satisfaction of the instructor.

Activity 3

<u>Project 1</u>

1. Film sheet
2. Stencil sheet
3. Cushion sheet
4. Backing sheet

<u>Project 2</u>

1. Cylinder holes
2. Stub
3. Top edge paper guide
4. Typewriter scale
5. Vertical line numbers
6. Postal card area
7. Side margin
8. Area of reproduction
9. Center of stencil
10. Warning numbers--11-inch paper
11. Warning numbers--14-inch paper

Activity 4

<u>Project 1</u>

1. Place the ribbon control lever to the "stencil" position.
2. Clean the typing element or printwheel if you are not using a film sheet.
3. Place a cushion sheet between the stencil sheet and the hard, backing sheet. The glossy side of the cushion sheet should face the stencil.
4. Insert the stencil pack in the typewriter as if you were inserting a regular sheet of paper.

Activity 4 (Continued)

5. Set margins and begin keying, using the stencil guide marks on the stencil sheet.
6. Proofread copy before removing stencil from typewriter. Or, if you are using a computer, before printing, reread and use the spell checker.

Project 2

1. Roll up master, and remove the film sheet.
2. Using a smooth object such as a paper clip, rub over the error very gently to spread the wax coating over the error.
3. Lift the stencil sheet out from the cushion or backing sheet by inserting a pencil, and brush the correction fluid over the error. Hold in this position until the area is dry.
4. Replace the film sheet, roll to typing position, and type over the error.

Activity 5

Project 1

1. Ballpoint stylus--used for drawing solid and broken lines.
2. Rollpoint stylus--used for writing, signing names, and freehand drawing.
3. Wire-loop stylus--primarily used for ruling or drawing.
4. Wheel stylus--used for drawing solid and broken lines.

Project 2

1. Place picture between stencil sheet and backing sheet.
2. Keep the film sheet in place.
3. Place the entire pack on the light table.
4. Trace the picture.

Activity 6 Evaluated to the satisfaction of the instructor.

Activity 7

1. **Causes--**low ink supply or uneven typewriter.
   Remedies--increasing ink supply, or changing the impression control on the typewriter or the printer to medium setting.
2. **Causes--**copy sheet sticking together, or feeding parts not working properly.
   Remedies--fan copy paper, or check the feeding mechanism.
3. **Causes--**feeding mechanism is either dirty or not working properly.
   Remedies--check, clean, and/or replace feeder parts.

Activity 7 (Continued)

4. **Causes**--ink is on either the stencil, impression roller, or metal parts of the drum.
   Remedies--clean the ink off stencil, impression roller, or metal parts of the drum.
5. **Causes**--dirty feed rollers or ink leakage from the stencil.
   Remedies--clean feed wheels and rollers, or apply a light coat of stencil correction fluid over holes in stencil.
6. **Causes**--wrinkles on stencil.
   Remedies--rub thumb across and down the stencil.
7. **Causes**--wrong vertical alignment.
   Remedies--move the vertical placement lever in the direction desired.

Activity 8 Evaluated to the satisfaction of the instructor.

COMPETENCY TEST ANSWERS

Part I

1. E
2. L
3. K
4. H
5. A
6. C
7. D
8. F
9. N
10. J
11. O
12. P
13. I
14. G
15. B
16. M

Part II

1. A
2. L
3. E
4. I
5. J
6. H
7. H
8. F
9. G
10. D
11. C
12. B

Part III Descriptions evaluated to the satisfaction of the instructor.

1. Stencil sheet
2. Cushion sheet
3. Backing sheet
4. Film sheet

Part IV

Project 1

1. B
2. D
3. A
4. E
5. F
6. C

Project 2

1. Roll up master, and remove the film sheet.
2. Rub over the error gently with a paper clip.
3. Lift the stencil sheet out, and brush the correction fluid over the error.
4. Put film sheet back, roll to typing position, and type over the error.

Part V

Project 1

1. Ballpoint--used for detailed art work.
2. Rollpoint--used for writing, signing names, and freehand drawing.
3. Wire-loop--used for drawing lines.
4. Wheel--used for drawing lines.

Project 2 Evaluated to the satisfaction of the instructor.

Part VI

Project 1 Evaluated to the satisfaction of the instructor.

Project 2

1.
2. X
3. X
4. X
5.
6. X

Part VII

1. A
2. B
3. B
4. C
5. A

Part VIII Evaluated to the satisfaction of the instructor.

COMPETENCY CHECKLIST

ESSENTIAL ELEMENTS: 75.87 (d)/(m)(3)(B)

The student shall be provided opportunities to identify the procedures used in operating reprographic equipment.

OBJECTIVE:	Student will be able to operate an electronic stencil maker and a stencil duplicator.	MASTERY	NON-MASTERY
1.	Match terms relating to stencil duplication with their correct definitions.	______	______
2.	Describe the stencil duplicator operation.	______	______
3.	Describe the parts of a stencil pack and how to use the stencil guide marks.	______	______
4.	Place the steps for preparing and correcting a stencil in the proper order.	______	______
5.	Describe and demonstrate various styli and drawing procedures.	______	______
6.	List the procedures for operating an electronic stencil maker.	______	______
7.	Describe causes of and remedies for stencil duplication problems.	______	______
8.	Demonstrate the ability to:		
	a. Prepare a stencil.	______	______
	b. Operate an electronic stencil maker.	______	______
	c. Operate a stencil duplicator.	______	______
	d. Clean and change color.	______	______

STUDENT NAME ____

SUGGESTED UNIT LESSON PLAN

SECTION III: OPERATING OFFICE MACHINES

UNIT I: REPROGRAPHICS

ESSENTIAL ELEMENTS: 75.87 (d)(3)(B)(C),(m)(3)(B)

ALLOCATED TIME: 15-30 Hours

UNIT OBJECTIVE: Students will demonstrate procedures and skills used in operating the offset press.

MODULE F: OFFSET PROCESS

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Define terms related to the offset process.
2. Identify the offset process and systems.
3. List advantages and disadvantages of using the offset.
4. Identify the types of masters and platemakers.
5. Demonstrate the ability to prepare and duplicate an offset master.
6. Demonstrate the ability to follow offset operating procedures.
7. Identify careers and new technology in the area of offset printing.

FOCUS: Offset printing is a major industry, offering new technology affecting modern offices, schools, and businesses. A working knowledge of printing skills contributes to the success of the trainee.

DOMAINS: Activities and competency tests have been designed to provide learning experiences utilizing the cognitive, psychomotor, or affective domains. Activity and competency tests are coded on the Activity and Competency Test Matrices.

BASIC SKILLS: Activities and competency tests have been designed to reinforce the basic skills of reading, writing, and/or mathematics. Activities and competency tests have been coded on the Activity and Competency Test Matrices.

CONTENT OUTLINE

I. Offset press process and systems
    A. Offset process
    B. Offset systems

II. Advantages and disadvantages of the offset process
    A. Advantages
    B. Disadvantages

III. Masters and platemakers
    A. Types of masters
    B. Prepare the offset master (direct image)
    C. Platemakers
    D. Operating the platemaker
    E. Processing the offset plate

IV. Offset operating procedures
    A. Inking the offset duplicator
    B. Running the offset duplicator
    C. Filing and storing offset masters
    D. Cleaning the offset duplicator

V. Careers and new technology
    A. Jobs available in the printing field
    B. Pay scale
    C. Postsecondary training and education
    D. New technology

SUGGESTED TEACHER ACTIVITIES

General Teacher Preparation

1. Preview unit.
2. Review unit objectives.
3. Make instructional analysis.
4. Assess student learning needs.
5. Decide on lesson domain: cognitive, psychomotor, or affective domain.
6. Select instructional strategies based on instructional analysis and student learning needs.
7. Select instructional strategies based on lesson content and student learning needs.
8. Prepare lesson plans from the unit lesson.
9. Prepare additional instructional material.
10. Prepare necessary equipment, tools, supplies, and media.

Teacher Presentation

1. Present student objectives.
2. Establish rapport with students.
3. Review lesson objectives with students.
4. Relate lesson to prior or future learning.
5. When appropriate, encourage student interaction through questioning, discussions, or some other strategy.
6. Emphasize the value/importance of the unit or activity.
7. Allow time for closure of lesson.

Reteach Activities

1. Identify area(s) of weakness from results of evaluation.
2. Select unit activities not previously used.
3. Use additional resources, and/or create materials based on student learning needs.
4. Use a different teaching strategy in reteaching.
5. Retest.

Specific Teaching Suggestions

1. Become familiar with instructional material to be used. Practice demonstrations using needed supplies and materials.
2. Collect samples of printed copy (cards, color jobs, brochures).
3. Gather supplies and materials needed (varies with individual machines).
4. Provide instruction manual for machine.
5. Provide specific safety rules for machine.
6. Plan visits to local press distributor, major printing facility, and/or to a technical school.
7. Provide material from postsecondary instructional schools.
8. Provide a speaker from the printing field.
9. Overhead projectors, transparency projectors, filmstrips, films, excerpts from textbooks, demonstrations by salesmen, chalkboard, and instructional sheets may be used as often as possible to enhance learning.
10. Each project assigned should have a portion that will fall into the performance range of all students.
11. Provide handouts when discussing the definition of the offset process. Make sure the students understand that they are responsible for this information.
12. Prepare a display of samples of each type of offset master for students to identify.
13. Many of the procedures in the overview are very general. Instruct your students to follow the specific instructions contained in the operator's manual for the particular model being used.

Activity 4

Project 2	Specify which type of master process to use.
Activities 5-6	Prepare materials for the students to complete. Use the teacher/student checklist.
Part IV	Use the samples you displayed of offset masters for students to identify, and explain the procedures for using the one you use in your classroom.
Part V-VI	Prepare material for students to complete. Use the teacher/student checklist.

ACTIVITY MATRIX

Activities	**Domains**			**Basic Skills**		
	Cognitive	**Psycho-motor**	**Affective**	**Reading**	**Writing**	**Math**
1	X			X		
2 Project 1	X				X	
Project 2	X				X	
3	X				X	
4 Project 1	X				X	
Project 2	X			X		
Project 3	X	X		X		
Project 4	X	X		X		
5 & 6	X	X			X	
7 Project 1	X	X			X	
Project 2		X			X	
Project 3	X	X			X	

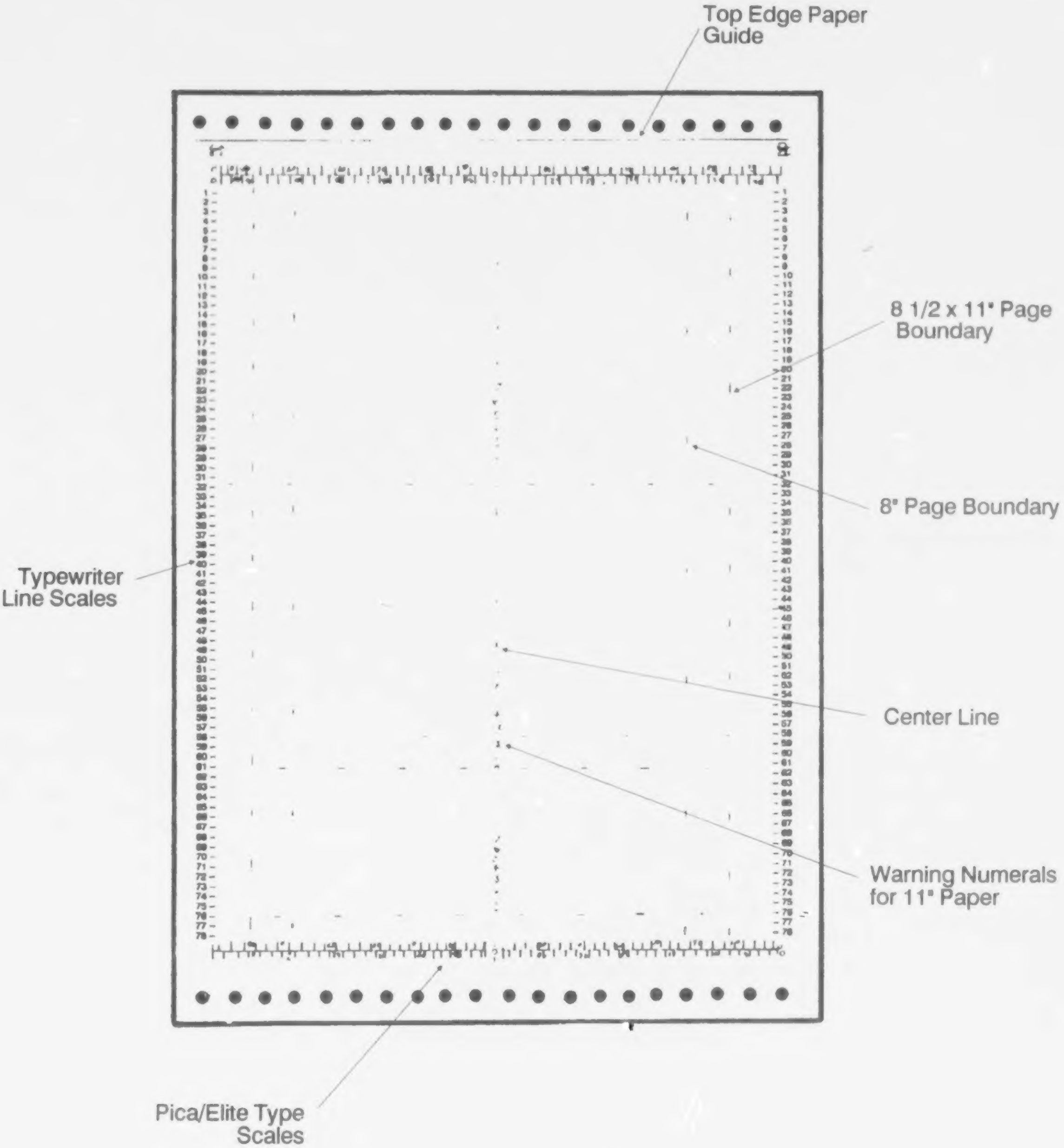
COMPETENCY TEST MATRIX

Parts	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
I	X			X		
II Project 1	X			X		
Project 2	X				X	
III	X			X		
IV Project 1	X				X	
Project 2	X				X	
Project 3	X	X			X	
V	X	X			X	
VI	X	X			X	
VII Project 1	X				X	
Project 2	X				X	

HANDOUT 1: OFFSET PROCESSES

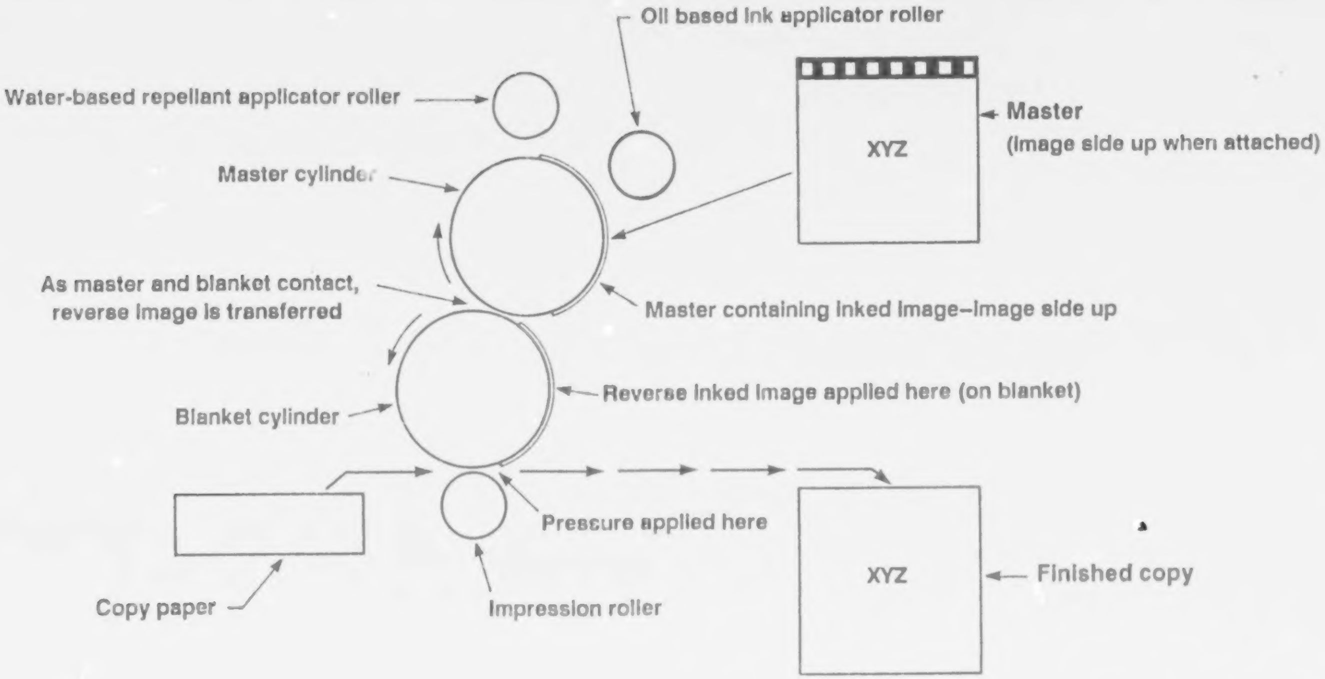
Offset printing	Offset process based on the principle that oil and water will not mix. The oil-based printing ink and the water-based repellent (fountain solution) will not mix.
Mastering process	As the master cylinder revolves, the master is brought into contact with a small, water roller moistened with a water-based solution. This solution coats the area of the master that has no images (blank), but will not coat the image areas of the master.
Inking process	As the master cylinder rotates an ink roller coated with greasy ink touches the master. The ink from the ink roller coats the image area of the master. The image now appears on the master in the form of ink on a wet, water-based background.
Reverse imaging process	As the master continues to rotate, it touches a large cylinder which has a rubber blanket attached to the surface. As both cylinders rotate, the image from the master is transferred to the blanket, or is "offset" from master to blanket. The image on the blanket is the reverse of the image that is on the master.
Impression process	A cylinder beneath the master cylinder, called an impression cylinder, presses a clean piece of copy paper against the blanket cylinder. The inked image on the blanket is printed on the paper. The paper, containing the image, exits the duplicator into the paper receiving tray.

DIRECT-IMAGE PAPER MASTER

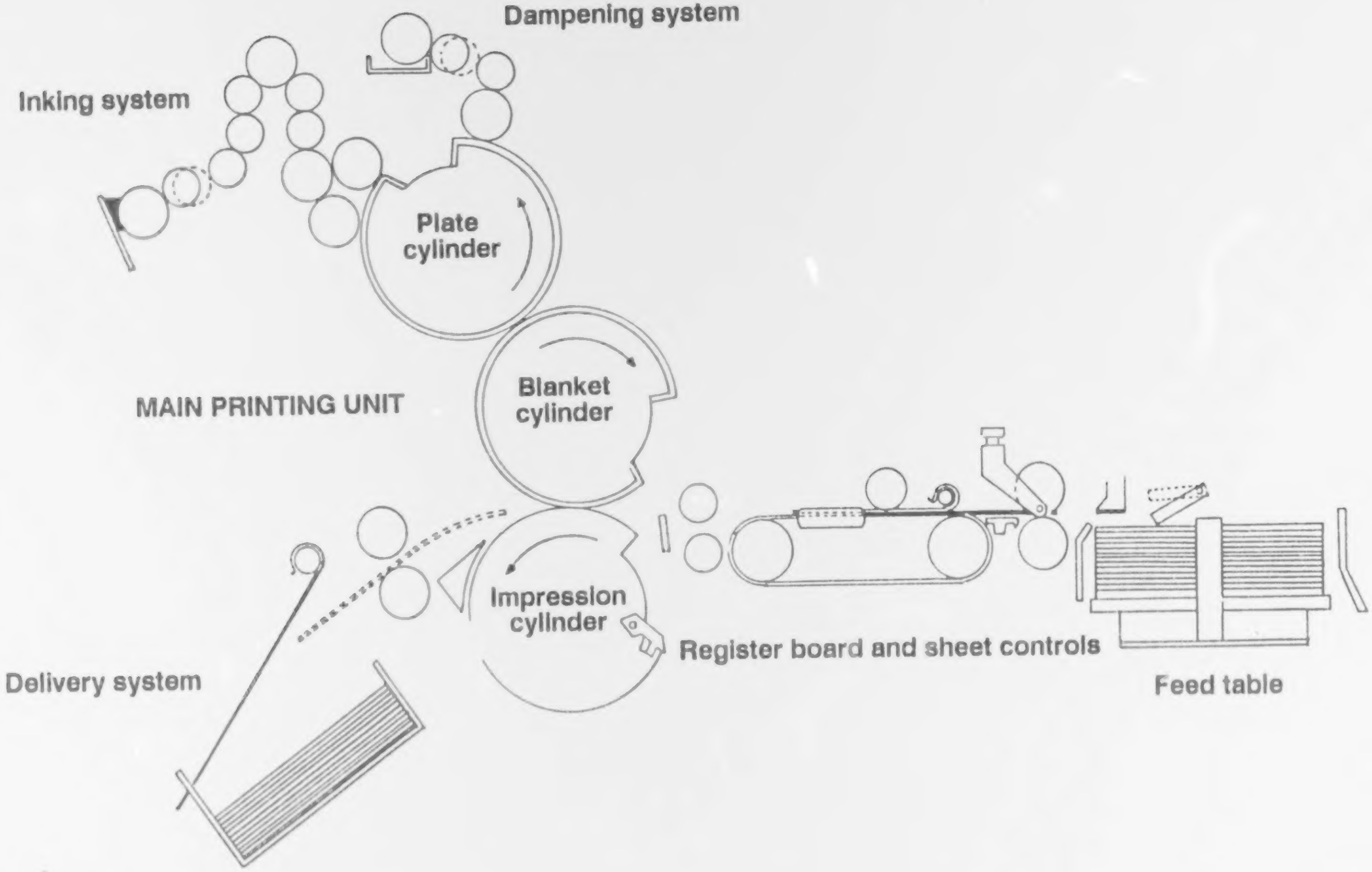

Top Edge Paper Guide
8 1/2 x 11" Page Boundary
8" Page Boundary
Typewriter Line Scales
Center Line
Warning Numerals for 11" Paper
Pica/Elite Type Scales

TM-1

THE REVERSE IMAGE PROCESS

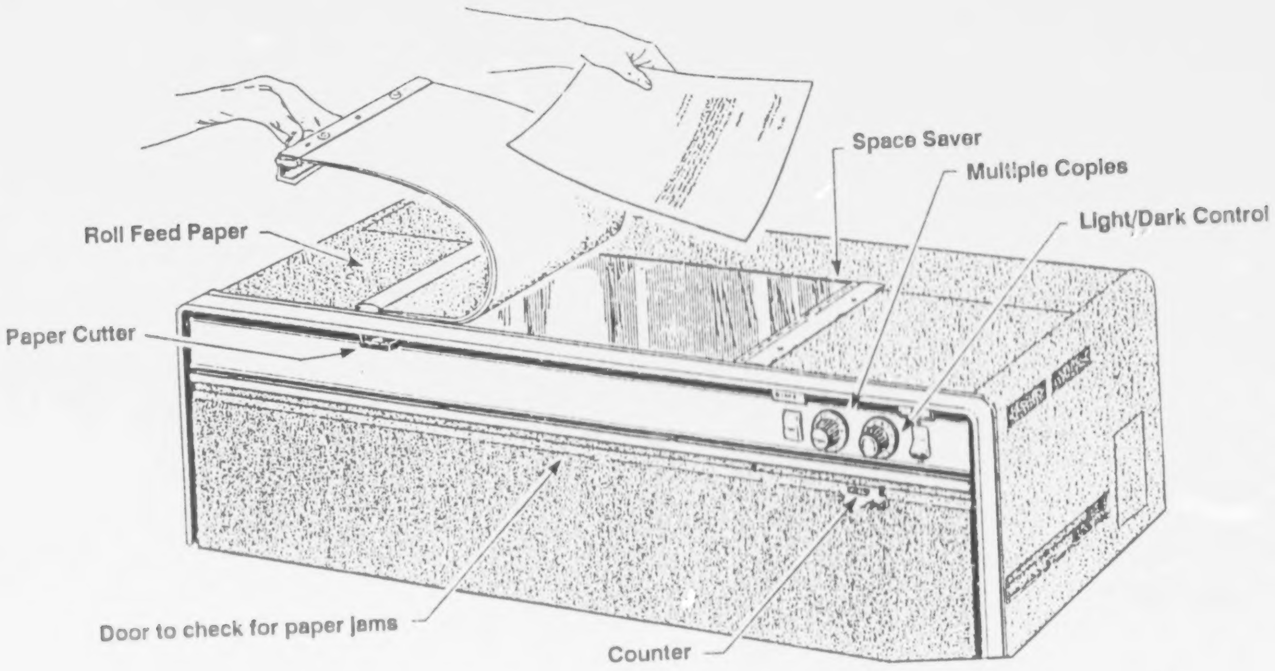

Oil based ink applicator roller
Water-based repellant applicator roller
Master
(image side up when attached)
XYZ
Master cylinder
As master and blanket contact, reverse image is transferred
Master containing inked image–image side up
Reverse inked image applied here (on blanket)
Blanket cylinder
Pressure applied here
Copy paper
Impression roller
XYZ
Finished copy

THE OFFSET SYSTEMS


Dampening system
Inking system
Plate cylinder
Blanket cylinder
MAIN PRINTING UNIT
Impression cylinder
Register board and sheet controls
Feed table
Delivery system

TM-3

COPIER COMPONENTS


Space Saver
Multiple Copies
Light/Dark Control
Roll Feed Paper
Paper Cutter
Door to check for paper jams
Counter

TM-4

COMPETENCY TEST

PART I: TERMINOLOGY

INSTRUCTIONS: **Match the following terms with their definitions.**

A. Offset plate
B. Offset duplicator
C. Platemaker
D. Plate (master) cylinder
E. Blanket cylinder
F. Impression cylinder

_______1. Drum on the offset duplicator used to hold a rubber blanket which comes into contact with the inked image on the plate cylinder.

_______2. Cylinder which carries the paper inside the offset duplicator and applies pressure to the paper against the blanket cylinder to control imaging.

_______3. Used to hold the offset plate in place and bring the plate into contact with the dampening rollers.

_______4. Machine which exposes images onto an offset plate to be used for duplicating.

_______5. Machine which transfers the image from an offset plate to copy paper. Printing unit consists of a plate cylinder, blanket cylinder, and impression cylinder.

_______6. Thin sheet of paper, plastic, or metal on which an inked printing image is transferred to the offset blanket when the offset press is operating. The image on a plate (paper, metal, or plastic) is highly receptive to ink.

PART II: OFFSET PROCESS AND PROCEDURES

Project 1

INSTRUCTIONS: **Place an X beside those statements that are true concerning the offset process.**

________1. The offset process is based on the principle that oil and water mix readily.

________2. Copies on an offset duplicator are produced from metal or paper masters.

________3. A direct image is deposited on the master, which is attached to the plate cylinder.

________4. The water solution sticks to the part of the offset master which has the image.

________5. Ink sticks to those areas on the offset master that have images.

________6. The image on the blanket cylinder is the reverse of the image that was on the plate cylinder.

________7. The impression cylinder presses a piece of clean copy paper against the blanket system.

PART II (Continued)

Project 2

INSTRUCTIONS: List the offset press systems

1.

2.

3.

4.

5.

6.

PART III: ADVANTAGES AND DISADVANTAGES

INSTRUCTIONS: **Place an A for advantage or a D for disadvantage beside each statement.**

_______1. Material costs are higher than other forms of duplication.

_______2. It is more expensive to keep up the machine.

_______3. The quality of the copy looks as good as the original.

_______4. The procedures in operating the machine are more technical.

_______5. Each copy is of the same high quality.

_______6. Printing can be done in color.

_______7. Equipment is more expensive than that for other forms of duplication.

_______8. Many copies can be produced in a short period.

PART IV: TYPES OF MASTERS AND PLATEMAKERS

Project 1

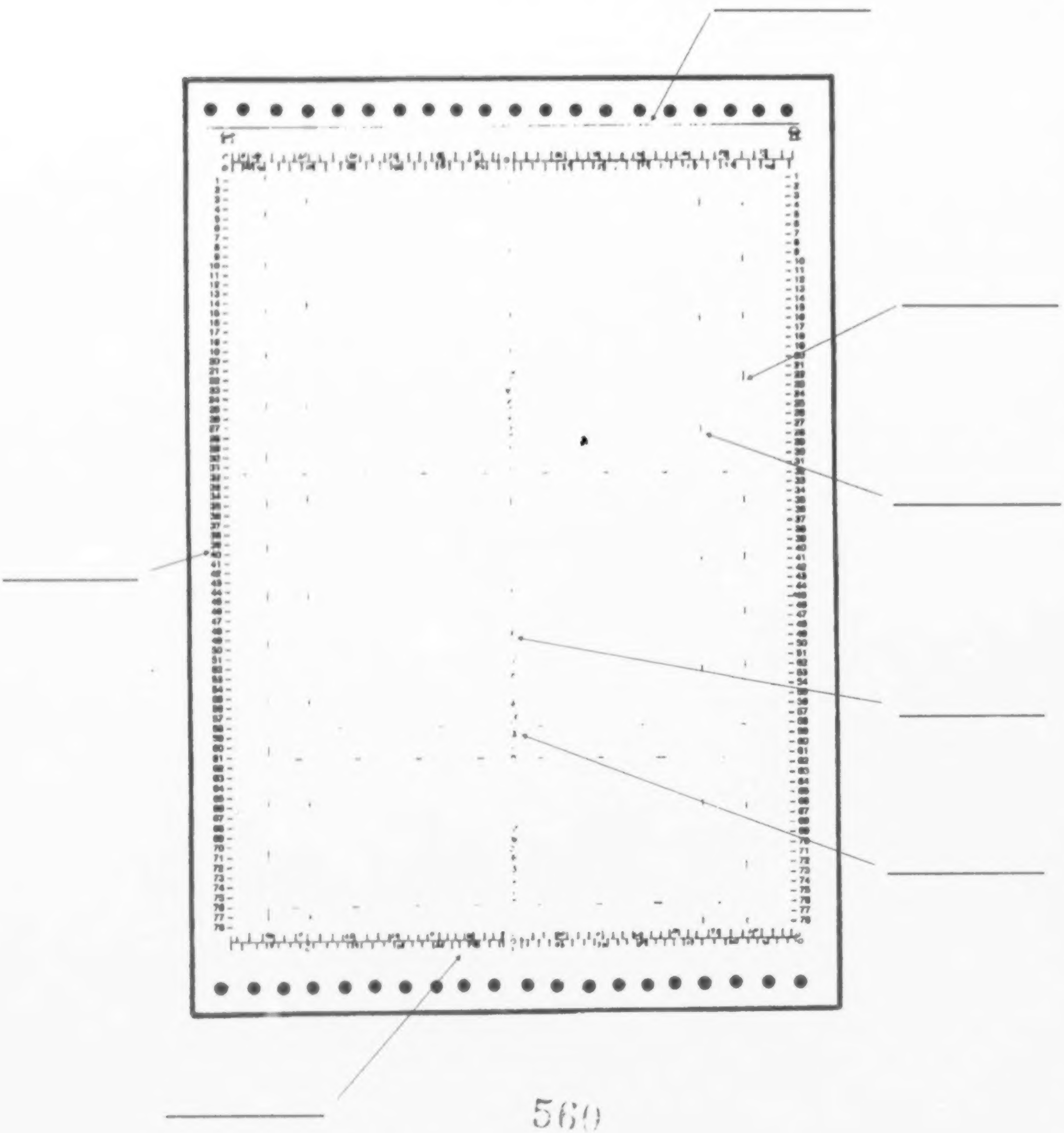
INSTRUCTIONS: **Identify and explain the preparation procedures for the offset master specified by your teacher.**

Project 2

INSTRUCTIONS: **Identify the type(s) of platemaker(s) used in your room.**

Project 3

INSTRUCTIONS: Identify parts of the direct-image paper master (pin bar).



560

PARTS V-VI: PREPARE AND DUPLICATE OFFSET MASTER AND OPERATE PRESS

INSTRUCTIONS: **Following the instructions provided by your teacher. Prepare an offset master, and make the designated number of copies.**

PART VII: CAREERS AND NEW TECHNOLOGY

Project 1

INSTRUCTIONS: **Describe one job that is related to offset/printing you found of interest.**

Project 2

INSTRUCTIONS: **List four technological developments in the printing industry.**

1.

2.

3.

4.

ANSWERS TO ACTIVITIES

Activity 1

1. Thin sheet of paper, plastic, or metal on which an inked printing image is transferred to the offset blanket when the offset press is operating. The image on a plate (paper, metal, or plastic) is highly receptive to ink.
2. Machine which transfers the image from an offset plate to copy paper. Printing unit consists of a plate cylinder, blanket cylinder, and impression cylinder.
3. Machine which exposes images onto an offset plate to be used for duplicating.
4. Used to hold the offset plate in place and bring the plate into contact with the dampening rollers.
5. Drum on the offset duplicator used to hold a rubber blanket which comes into contact with the inked image on the plate cylinder.
6. Cylinder which carries the paper inside the offset duplicator and applies pressure to the paper against the blanket cylinder to control imaging.

Activity 2

Project 1

The offset process is based on the principle that oil and water will not mix. In offset printing, the oil-based printing ink and the water-based repellent (fountain solution) will not mix.

Project 2

1. Dampening system
2. Inking system
3. Main printing system
4. Feeding system
5. Register board and sheet controls system
6. Delivery system

Activity 3

Advantages

> The quality of the copy looks as good as the original. Each copy is of the same high quality. Printing can be done in color, and many copies can be produced in a short period of time.

Disadvantages

> The equipment is more expensive than other forms of duplication. Procedures in operating the machine are harder. It is more expensive to keep up the machine. Material costs are higher than for other types of duplicating machines.

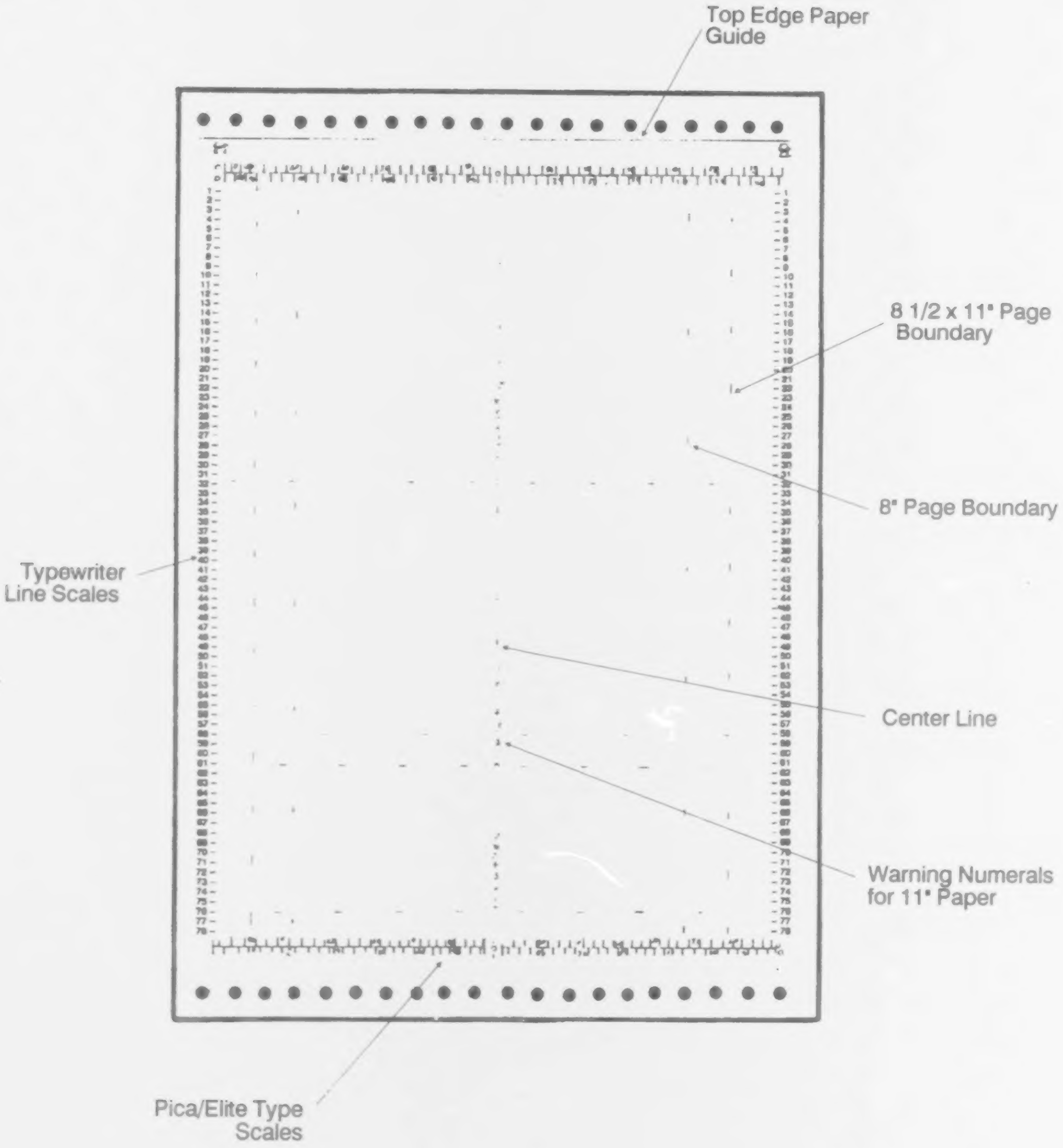
Activity 4

Project 1 Evaluated to the satisfaction of instructor.

Project 2

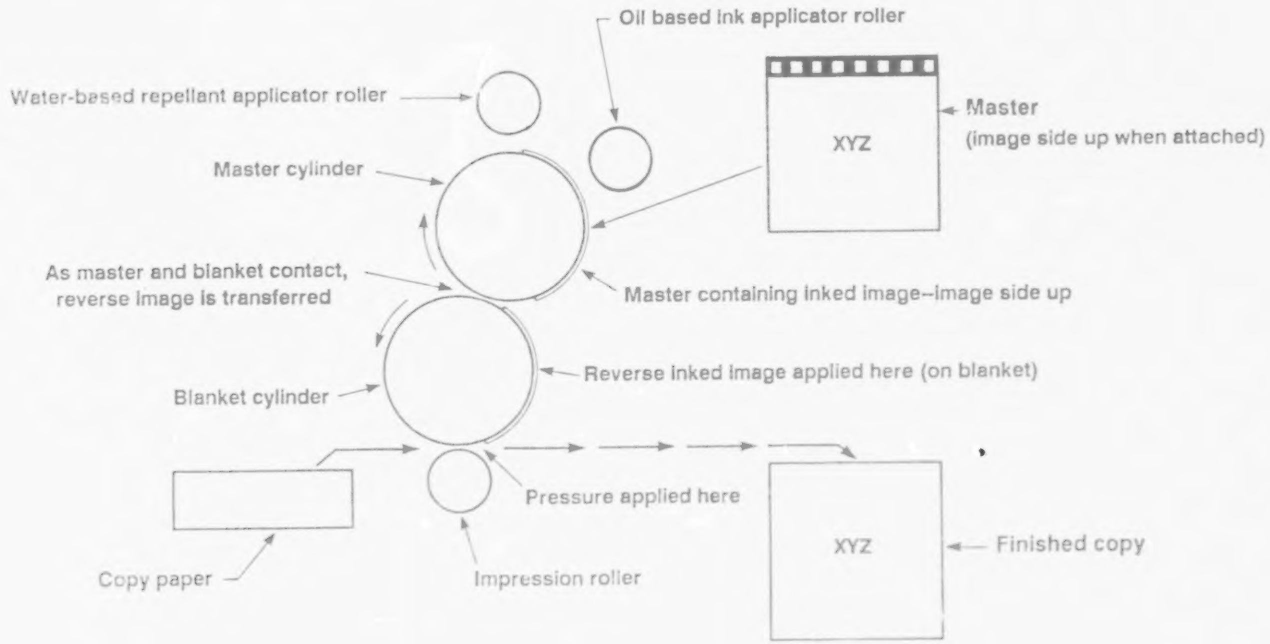
1. 6
2. 9
3. 2
4. 4
5. 7
6. 1
7. 5
8. 8
9. 3

Project 3


Top Edge Paper Guide
8 1/2 x 11" Page Boundary
8" Page Boundary
Typewriter Line Scales
Center Line
Warning Numerals for 11" Paper
Pica/Elite Type Scales

Project 4

THE REVERSE IMAGE PROCESS


Oil based ink applicator roller
Water-based repellant applicator roller
Master
(image side up when attached)
XYZ
Master cylinder
As master and blanket contact,
reverse image is transferred
Master containing inked image--image side up
Reverse inked image applied here (on blanket)
Blanket cylinder
Pressure applied here
XYZ
Finished copy
Copy paper
Impression roller

Activities 5-6 Evaluated to the satisfaction of instructor.

Activity 7

Projects 1-3 Evaluated to the satisfaction of instructor.

COMPETENCY TEST ANSWERS

Part I

1.	E	4.	A
2.	F	5.	B
3.	D	6.	C

Part II

Project 1

1.		5.	X
2.	X	6.	X
3.	X	7.	X
4.			

Project 2

1.	Dampening	4.	Feeding unit
2.	Inking	5.	Register board and sheet controls
3.	Main printing unit	6.	Delivery system

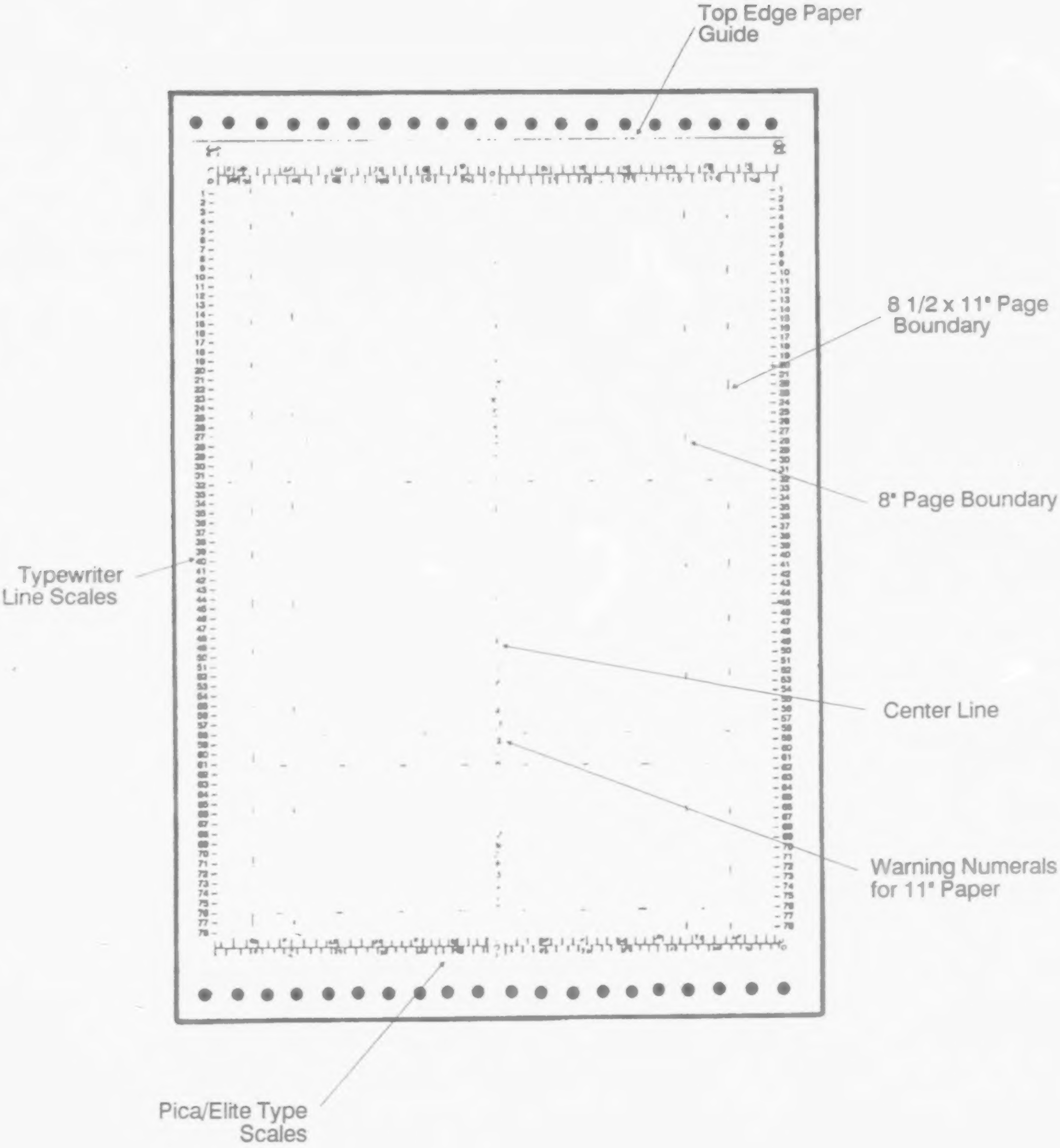
Part III

1.	D	4.	D	7.	D
2.	D	5.	A	8.	A
3.	A	6.	A		

Part IV

Projects 1-2 Evaluated to the satisfaction of the instructor.

Project 3


Top Edge Paper Guide
8 1/2 x 11" Page Boundary
8" Page Boundary
Typewriter Line Scales
Center Line
Warning Numerals for 11" Paper
Pica/Elite Type Scales

Parts V-VI Evaluated to the satisfaction of the instructor.

Part VII

Projects 1-2 Evaluated to the satisfaction of the instructor.

COMPETENCY CHECKLIST

ESSENTIAL ELEMENTS: 75.87(d)(3)(B),(m)(3)(B)

The student shall be provided opportunities to identify the procedures used in operating reprographic equipment and demonstrate the ability to prepare masters and to operate the offset press.

OBJECTIVE: **Students will demonstrate procedures and skills used in operating the offset press.**

		MASTERY	NON-MASTERY
1.	Define terms related to the offset process.	______	______
2.	Identify the offset process and systems.	______	______
3.	List advantages and disadvantages of using the offset.	______	______
4.	Identify the types of masters and platemakers.	______	______
5.	Demonstrate the ability to prepare and duplicate an offset master.	______	______
6.	Demonstrate the ability to follow offset operating procedures.	______	______
7.	Identify careers and new technology in the area of offset printing.	______	______
		______	______
		______	______

STUDENT NAME ______________________________

SUGGESTED LESSON PLAN

SECTION III: OPERATING OFFICE MACHINES

UNIT I: REPROGRAPHICS

ESSENTIAL ELEMENTS: 75.87 (d)(3)(D),(m)(3)(C)

ALLOCATED TIME: 10-20 Hours

UNIT OBJECTIVE Students will be able to prepare a document using desktop publishing techniques.

MODULE G: DESKTOP PUBLISHING

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Recognize desktop publishing terms.
2. Compare methods of traditional publishing and desktop publishing.
3. List the components of desktop publishing.
4. List basic areas of planning to consider when preparing a graphics document for desktop publishing.
5. Demonstrate the tools and procedures for producing simple documents using available desktop publishing procedures.

FOCUS Desktop publishing technology is a form of reprographics that affects today's office. A working knowledge of modern reprographic technology enhances opportunities for the beginning office worker.

DOMAINS Activities and competency tests have been designed to provide learning experiences utilizing the cognitive, psychomotor, or affective domains. Activities and competency tests are coded on the Activity and Competency test Matrices.

BASIC SKILLS Activities and competency tests have been designed to reinforce the basic skills of reading, writing, and/or mathematics. Activities and competency tests have been coded on the Activitiy and Competency Test Matrices.

CONTENT OUTLINE

- I. Defining desktop publishing and its concepts
  - A. Meaning of desktop publishing
  - B. Goal of desktop publishing
  - C. History of desktop publishing
  - D. Comparison of traditional and desktop publishing procedures
- II. Components of desktop publishing
  - A. Hardware
  - B. Software
- III. Operational procedures
  - A. Plan publication.
  - B. Design document's appearance.
  - C. Create text and graphics.
  - D. Use style sheets.
  - E. Manipulate document on the screen.
  - F. Use page layout software.
  - G. Print the document.

SUGGESTED TEACHER ACTIVITIES

General Teacher Preparation

1. Preview unit.
2. Review unit objectives.
3. Make instructional analysis.
4. Assess student learning needs.
5. Decide on lesson domain: cognitive, psychomotor, or affective domain.
6. Select instructional materials based on instructional analysis and student learning needs.
7. Select instruction strategies based on lesson content and student learning needs.
8. Prepare lesson plans from the unit lesson.
9. Prepare additional instructional material.
10. Reserve necessary media and equipment.

Teacher Presentation

1. Present student objectives.
2. Establish rapport with students.
3. Review lesson objectives with students.
4. Relate lessons to prior or future learning.
5. When appropriate, encourage student interaction through questioning, discussions, or some other strategy.
6. Emphasize the value/importance of the unit activity.
7. Allow time for closure of a lesson.

Reteach Activities

1. Identify area(s) of weakness from results of evaluation.
2. Select unit activities not previously used.
3. Use additional resources and/or create materials based on student learning needs.
4. Use a different teaching strategy in reteaching.
5. Retest.

Specific Teaching Suggestions

1. Become familiar with the software that will be used--word processing, graphics, and desktop publishing. Make sure that all software is compatible.
2. Make up a file of samples brochures, catalogs, and reports that were, or could have been, produced by desktop publishing.
3. Examine the terms listed in this unit, and add any additional terms to the list that are needed for working with the particular software that will be used in class.
4. Compile a list of possible class, individual, or desktop publishing school projects that might be used. This list can be expanded with suggestions from students during class discussion.
5. Plan a lecture on the characteristics and terminology of the publishing industry.
6. Prepare a demonstration of the steps in putting together a simple publication.
7. Make arrangements to take a tour of a local, traditional print shop in your community to see the steps in printing. Or, have a printer speak to the class, describing the steps.
8. Plan a visit to an office where extensive desktop publishing is done.
9. If preferred, and hardware and/or software is not available, arrange to substitute word processing and graphics programs to teach the concepts.
10. Use the information on the next page to relate to the students needs and benefits of using desktop publishing.
11. Prepare a list of ideas for students to develop into a reprographics project for Activity 5, Project 1.

Teacher Information

Deciding on a DTP system

A. Factors to consider before deciding if desktop publishing is needed:

1. Evaluate needs to make sure that a desktop system is really needed; this is considered the golden rule of computing.
2. Decide on what the budget will allow for the investment.
3. Select the software that fits your needs.
4. Select hardware that is compatible with the software and that will run each component.
5. Select a dealer who knows desktop publishing.
6. Get the equipment warranties in writing.
7. Get training for personnel who will be using the system.

B. What a DTP system will do for the user:

1. Makes the printed material look better.
2. Gives some control over the entire print production process.
3. Reduces time and labor costs.

C. Benefits and disadvantages of desktop publishing

1. Benefits
    - a. Saves time, materials, and labor.
    - b. Improves communication, in that revising or updating can be done immediately by an organization.
    - c. Eliminates rekeying for typeset quality documents.
    - d. Provides high-quality presentations.
    - e. Offers better work flow control.
    - f. Eliminates manual cut and paste.

g. Makes security easier to maintain since documents are produced in-house.

2. Disadvantages

a. Involves long learning curve for page layout programs.

b. Users do not have the expertise in layout and design.

ACTIVITY MATRIX

Activities	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
1	X			X	X	
2	X				X	
3	X				X	
4	X				X	
5 Project 1	X	X	X		X	
Project 2	X	X	X	X	X	X

COMPETENCY TEST MATRIX

Parts	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
I	X			X		
II	X			X		
III	X			X		
IV and V	X	X		X	X	X

COMPETENCY TEST

PART I: TERMINOLOGY

INSTRUCTIONS: Provide the correct term to match the appropriate definition.

________________ 1. The ability to wrap text around graphic images on a page layout.

________________ 2. A copy of a photograph or scanned document that is digitized and stored in memory or on disk.

________________ 3. A design template that divides a page with imaginary vertical and horizontal lines as an aid to placing and aligning type and graphic elements.

________________ 4. The process of changing the size of an image but not the proportions. Also known as sizing.

________________ 5. The final copy of a document, including graphics.

________________ 6. The written element of a publication, including text, captions, and headlines; also refers to reproducing files, documents, or parts of documents.

________________ 7. A typeset and formatted draft used for proofreading copy.

________________ 8. A graphic device which permits a command to be selected by using a mouse.

________________ 9. One of the many sizes and styles of type that may be available for printing.

________________10. A rule or linear design that surrounds any element of a page.

________________11. An acronym referring to software that is valuable in doing drawings or designs.

________________12. Similar to justification, but more inclusive when working with multiple columns.

____________________ 13. Art or printed material that is ready to be photographed by the printer.

____________________ 14. Cutting off parts of an image or drawing to make it fit, or to show only selected areas.

____________________ 15. The imaginary horizontal line on which characters on a line of type rest.

____________________ 16. A collection of handy drawings stored on disk that can be inserted into a document.

____________________ 17. The techniques of extending art or text in any direction over the edge of a page.

____________________ 18. A temporary storage place for text or graphics.

____________________ 19. Small black circles or other characters used in the margin to call attention to a portion of text.

____________________ 20. A mock layout showing placement of art and text.

PART II: COMPARISON OF TRADITIONAL PUBLISHING AND DESKTOP PUBLISHING METHODS

INSTRUCTIONS: **Classify each of the following procedures as to whether they are T--traditional procedures or D--desktop publishing procedures.**

________ 1. Utilize computers for many processes.

________ 2. A graphic designer designs the publication.

________ 3. Project developer selects appropriate paper and inks.

________ 4. A paste-up artist assembles all the elements into camera-ready copy for the printer.

________ 5. Require one to understand the printing process, including how to handle photographs.

________ 6. A typesetter sets the type.

________ 7. A camera operator creates halftone screens.

________ 8. Person in charge of the process writes and edits the documents.

________ 9. Project manager designs the document, including selection of layout, typeface, and graphic elements.

________ 10. A proofreader checks the copy.

________ 11. Proofread by process manager.

________ 12. Writer and editor creates and shape the content.

________ 13. Document creator selects appropriate binding process.

PART III: COMPONENTS OF DESKTOP PUBLISHING SYSTEMS

INSTRUCTIONS: **By placing an H or S in front of the item, indicate whether each item below is a hardware or software component. Some items are not components.**

________ 1. Word processing

________ 2. CATS

________ 3. Windows

________ 4. Monitor

________ 5. Games

________ 6. Image scanner

________ 7. Fluid duplicator

________ 8. Graphics

________ 9. Database

________ 10. Printer

________ 11. Page makeup

________ 12. Mouse

________ 13. Doors

________ 14. Computer

________ 15. Spreadsheet

PARTS IV-V: PREPARING A DESKTOP PUBLISHING DOCUMENT

INSTRUCTIONS: **Prepare a desktop publishing document, applying planning techniques and graphic guidelines you have learned. Make sure to have your idea approved by your teacher before you begin.**

ANSWERS TO ACTIVITIES

Activity 1

```
  H   F    A       W
 DESKTOPPUBLISHING H
  A   R    I       I
WIDOW M  P GRID    T
  E   A  O N       E
 PROMPT  R M   T
  S      T E   Y
         R N   P   W
     CLIPART  BORDER
 P    A  I     G   A
 ORPHANS T  C  R   P
 I A  D     R  A S
 N G  S  M  O  PICA
 T E  C  O  P  H A W
     LAYOUT    Y L Y
   L  P  S T     I S
  PASTE RESOLUTION I
   S       N     G W
   E   STYLESHEET  Y
  PROOF    R       G
```

Activity 2 Evaluated to the satisfaction of the instructor.

Traditional:

1. Writer and editor create and shape the content.
2. Graphic designer designs the publication.
3. Typesetter sets the type.
4. Proofreader checks the copy.
5. Camera operator creates halftone screens.
6. A paste-up artist assembles all the elements into camera-ready copy for the printer.

Desktop--One person in charge of the entire project:

1. Writes and edits the document.
2. Designs the document layout, typeface, and graphic elements.
3. Proofreads.
4. Understands the printing process, including how to handle photographs.
5. Selects appropriate paper and ink.
6. Selects appropriate binding process.
7. Utilizes computers for many of the above processes.

Activity 3

Hardware components	**Software components**
1. Computer	1. Word processing
2. Printer	2. Graphics
3. Monitor	3. Page makeup
4. Mouse	
5. Image scanner	
6. Disk storage	

Activity 4

1. Decide what messages will be communicated.
2. Decide on the audience.
3. Decide on the most effective format and means of receiving the document.
4. Check for consistency in document appearance.
5. Decide on the length of the document, and the number of copies that need to be made.
6. Decide on the number of illustrations and their appropriateness with the text copy.
7. Check on the amount of money allocated for the document.
8. Decide on the document's emphasis.

Activity 5

Projects 1-2 Evaluated to the satisfaction of the instructor.

COMPETENCY TEST ANSWERS

Part I

1. Wrap
2. Image
3. Grid
4. Scaling
5. Proof
6. Copy
7. Galley
8. Dialog Box
9. Font
10. Border
11. CAD
12. Alignment
13. Camera-ready art
14. Cropping
15. Baseline
16. Clip Art
17. Bleed
18. Clipboard
19. Bullets
20. Dummy

Part II

1. D
2. T
3. D
4. T
5. D
6. T
7. T
8. D
9. D
10. T
11. D
12. T
13. D

Part III

1. S
2.
3. S
4. H
5.
6. H
7.
8. S
9.
10 H
11. S
12. H
13.
14. H
15.

Parts IV-V Evaluated to the satisfaction of the instructor.

RESOURCES

TEXT/WORK BOOKS

THE ART OF DESKTOP PUBLISHING
Bantam Books

DESKTOP PUBLISHING FROM A TO Z
Osborne McGraw-Hill Publishing

DESKTOP PUBLISHER'S DICTIONARY
Wordware Publishing

THE HANDBOOK OF DESKTOP PUBLISHING
Wordware Publishing

MICROSOFT WINDOWS 2.0
Wordware Publishing

PAGEMAKER 3.0
Wordware Publishing

USING PAGEMAKER
Houghton Mifflin Co.

VENTURA 2.0
Wordware Publishing

SOFTWARE

FONTASY
IBM PC, XT, AT, 128k
Apple II, IIe, IIc 48k, Macintosh
Prosoft

NEWSROOM
IBM PC, XT, AT, 256k
Apple IIgs, IIe, IIc 48k
Macintosh, Macintosh +
Springboard

PAGEMAKER
IBM PC, XT, AT, 386, 640k, DOS 3.0, hard disk and pointing device
Macintosh, Macintosh +
Aldus Software

PRINTSHOP
IBM PC, XT, AT
Commodore 64/128
Macintosh, Macintosh +
Broderbund Software

PRINTMASTER PLUS
Apple IIgs, IIe, IIc
IBM PC, XT, AT, 256k, graphics adapter

VENTURA PUBLISHER
IBM PC, XT, AT, 386, 512k, DOS 2.1, hard disk, graphics adapter, and pointing device

MEDIA

DESKTOP PUBLISHING
Videos
RMI Media Productions, Inc.

DESKTOP PUBLISHING VIDEO TAPES
Career Publishing, Inc.

ENTRY-LEVEL DESKTOP PUBLISHING
First Publisher, Entry Level

INTRODUCTION TO DESKTOP PUBLISHING
Videos
RMI Media Productions, Inc.

INTRODUCTION TO PAGEMAKER
Videos
RMI Media Productions, Inc., and
Career Publishing, Inc.

INTRODUCTION TO VENTURA
Videos
Career Publishing, Inc.

MAGAZINES

FAMILY AND HOME COMPUTING
Scholastic, Inc.

MODERN OFFICE TECHNOLOGY
Penton Publishing Co.

THE OFFICE
Office Publications, Inc.

OFFICE SYSTEMS 88
Office Systems Magazine, Inc.
Springhouse Corp.

PC RESOURCE
IDG Communications/Peterborough, Inc.

PERSONAL COMPUTING
Hayden Publishing Co.

PUBLISH
PCW Communications, Inc.

THE 1988 GUIDE TO DESKTOP PUBLISHING
Special Supplement to Personal Computing
Hayden Publishing Co.

COMPETENCY CHECKLIST

ESSENTIAL ELEMENTS: 75.87(d)(3)(D),(m)(3)(C)

The student will be provided opportunities to demonstrate the ability to use desktop publishing features.

OBJECTIVE: Students will be able to prepare a document using desktop publishing techniques.	MASTERY	NON-MASTERY
MODULE G: DESKTOP PUBLISHING		
1. Recognize desktop publishing terms.	______	______
2. Compare methods of traditional publishing and desktop publishing.	______	______
3. List the components of desktop publishing.	______	______
4. List basic areas of planning to consider when preparing a graphics document for desktop publishing.	______	______
5. Demonstrate the tools and procedures for producing simple documents using available desktop publishing procedures.	______	______
	______	______
	______	______

STUDENT NAME ________________________________

SUGGESTED UNIT LESSON PLAN

SECTION III: OFFICE MACHINES

UNIT II: ELECTRONIC CALCULATOR APPLICATIONS

ESSENTIAL ELEMENTS: 75.87 (d)(3)(E),(m)(3)(D)

ALLOCATED TIME: 15-30 Hours

UNIT OBJECTIVE: Students will be able to use the touch method on the electronic calculator or the microcomputer keypad to complete business and personal financial applications.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Apply the terms and definitions necessary for operating the electronic calculator in mathematical business problems.
2. Demonstrate the ability to use the touch system on the electronic calculator for computation of simple and complex mathematical problems.

FOCUS: Using the touch method on the keypad often facilitates business and personal use.

DOMAINS: Activities and competency tests have been designed to provide learning experiences utilizing the cognitive, psychomotor, or affective domains. Activities and competency tests are coded on the Activity and Competency Test Matrices.

BASIC SKILLS: Activities and competency tests have been designed to reinforce the basic skills of reading, writing, and/or mathematics. Activities and competency tests have been coded on the Activity and Competency Test Matrices.

CONTENT OUTLINE

I. Types of calculators

A. Electonic display

B. Electronic printing

C. Programmable

D. Computer keypad

II. Preparing to use calculators

A. Preparatory procedures

B. Touch system

C. Hold pencil in writing hand

D. Work habits

III. Using the touch method

A. Fingers that operate home row keys

B. Home row fingers stroke other keys

C. Use of other fingers

SUGGESTED TEACHER ACTIVITIES

General Teacher Preparation

1. Preview unit.
2. Review unit objectives.
3. Make instructional analysis.
4. Assess student learning needs.
5. Decide on lesson domain: cognitive, psychomotor, or affective domain.
6. Select instructional materials based on instructional analysis and student learning needs.
7. Select instructional strategies based on lesson content and student learning needs.
8. Prepare lesson plans from the unit lesson.
9. Prepare additional instructional material.
10. Reserve necessary media and equipment.

Teacher Presentation

1. Present student objectives.
2. Establish rapport with students.
3. Review lesson objectives with students.
4. Relate lesson to prior or future learning.
5. When appropriate, encourage student interaction through questioning, discussions, or some other strategy.
6. Emphasize the value/importance of the unit or activity.
7. Allow time for closure of a lesson.

Reteach Activities

1. Identify area(s) of weakness from results of evaluation.
2. Select unit activities not previously used.
3. Use additional resources and/or create materials based on student learning needs.
4. Use a different teaching strategy in reteaching.
5. Retest.

Specific Teaching Suggestions

1. This unit may be completed using a ten-key keypad on a computer or calculator. There are some software programs available for training in ten-key operations and for use with banking and payroll.

2. It is suggested that a software program or a ten-key calculator workbook be used for learning the ten-key keypad adequately. Use the projects listed in this unit as a review before assigning the test.

3. Use the five-minute practice timing to build the students' speed once they have learned all of the keys. Begin by giving this timing at least six times during the class period. Do this for three days. Then, use it as a sponge activity at the beginning of the period--have the students take two timings, recording their results on the timing record sheet provided. Do this for about six weeks, periodically giving a timing that you observe closely and count as a grade. Some days, have students strive for speed, other days, for accuracy. When grading, students should grade only their answers to the problems--do not have them mark every mistake. Have the students record the grade as 75/2, on the timing sheet. If they are using a calculator, have them turn in their tapes. Do not give the students a grade until the end of the six-weeks' period; then, grade on their **improvement**.

4. If the workbook you are using has problems concerning petty cash, banking, and payroll procedures, they may be used in lieu of the ones found in this unit. The activities provided in the unit may be used as a pretest, review, or reteach, as needed.

5. Prepare a bulletin board featuring each of the sections included in this unit--ten-key, petty cash, banking, and payroll. Include sample forms such as deposit slips, checks, bank statements, and reconciliation forms.

6. Use the *Microcomputer Business Applications* by MAVCC, that is available through the Educational Development & Training Center at East Texas State University. It is available for use with IBM, using the Deskmate software program, or for the Apple, using Appleworks program. Some of the activities relate to financial management.

7. Secure the audiovisual *Handling Financial Responsibilities* from Educational Development & Training Center, East Texas State University.

Specific Activities and Test Instructions

ACTIVITIES

Activity 2 These projects should **not** be the only source of material. Select your major resource form one of several sources. These projects may be used for a review, reteach, or possible additional practice. An answer sheet is provided.

Project 8 Provide students with a format.

COMPETENCY TEST

Part II

Projects 2-5 Most of these operations may be completed either on a computer keypad or on a calculator.

ADDITIONAL STUDENT ACTIVITIES

1. Read about the following topics in one or more textbooks recommended by your teacher: preparing checks, maintaining a checkbook balance, making bank deposits, reconciling bank statements, maintaining a petty cash fund, and preparing payroll records and paychecks. List five reasons why it is wise to use a checking account.

2. Take a pretest administered by your teacher concerning addition and subtraction problems. Continue practice exercises until you achieve the skill level required by your teacher.

FIVE-MINUTE ADDING SKILL PRACTICE TEST

In general, 140 strokes per minute is rated as superior; 120 excellent; 100 as good; and 75 as fair. These are suggested standards suitable for employment in positions requiring skill on the ten-key adding machine.

Strokes Per Minute	Grade	Errors Allowed
140 +	A	6
120-139	B	5
100-119	C	4
75-99	D	3
BELOW	F	

(NOTE: These may need to be changed according to your students' abilities.)

TEN-KEY KEYPAD DRILL

INSTRUCTIONS: Keep you eyes on the copy. After the timing, check your answers to see if they are right. If they differ, *circle all errors in the problems*. Check the scale above to see your progress. Repeat this drill as assigned by your teacher. (The strokes per minutes are in parentheses.)

1.	**2.**	**3.**	**4.**	**5.**	**6.**
439.10	6.42	36.89	8.31	23.55	587.12
471.80	5.13	428.22	12.63	482.08	44.66
203.44	527.56	86.57	798.10	193.29	311.00
79.54	5.43	736.84	32.18	51.21	651.50
5.46	9.76	228.61	58.43	42.08	579.82
304.52	416.79	872.16	96.18	552.31	691.61
650.67	3.82	32.81	3.63	53.82	110.92
652.30	614.23	5.10	85.38	832.52	731.66
467.43	42.73	2.45	73.12	718.08	32.43
12.28	711.40	598.31	614.81	2.98	58.88
685.39	67.88	210.81	78.65	300.49	54.40
3971.93	**2411.15**	**3238.77**	**1861.42**	**3252.41**	**3854.00**

7.	**8.**	**9.**	**10.**	**11.**	**12.**
92.43	81.98	27.21	271.51	446.84	82.58
317.11	53.24	53.61	70.60	490.49	32.33
901.30	13.28	500.41	54.13	723.10	514.30
31.32	997.18	48.85	566.15	170.88	30.40
3.44	33.99	32.32	611.41	4.54	688.12
4.41	(75) = 735.17	88.61	238.21	170.11	501.12
84.47	71.39	3.63	832.56	472.71	291.74
202.38	42.54	192.81	16.27	671.12	643.58
21.67	41.24	256.01	29.78	148.01	100.07
3.31	453.72	34.92	57.68	52.18	82.10
72.46	916.24	50.00	**(100)** = 260.19	126.26	**(120)** = 9.81
1734.30	**3439.97**	**1288.38**	**3008.49**	**3476.24**	**2976.15**

13.	**14.**	**15.**	**16.**	**17.**	**18.**
45.89	113.21	**(140)** = 57.15	**(150)** = 46.51	**(160)** = 72.72	876.27
368.97	61.85	93.02	590.03	7.53	90.13
8.92	10.25	68.11	12.37	298.25	5.50
26.10	182.62	1.19	66.59	11.81	11.74
7.87	90.87	146.35	26.97	62.70	460.92
590.30	116.20	52.68	987.03	455.00	81.69
31.26	231.08	481.87	33.47	49.63	566.76
9.71	824.18	74.22	753.73	391.71	507.53
51.28	14.18	770.23	14.33	213.21	5.00
972.18	486.63	170.21	38.83	581.87	198.37
74.53	73.21	23.81	112.55	611.35	86.53
2187.01	**2204.28**	**1938.84**	**2682.41**	**2755.78**	**2890.44**

ACTIVITY MATRIX

Activities	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
1	X			X		
2 Project 1	X	X		X		
Project 2	X	X		X		
Project 3	X	X		X		
Project 4	X	X		X		
Project 5	X	X		X		
Project 6	X	X		X		
Project 7	X	X		X		
Project 8	X	X		X		

COMPETENCY TEST MATRIX

Parts	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
I	X			X		
II Project 1	X				X	
Project 2	X	X		X		
Project 3	X	X		X		
Project 4	X	X		X		
Project 5	X	X		X		
Project 6	X	X		X		

COMPETENCY TEST

PART I: TERMINOLOGY

INSTRUCTIONS: **Match each term with its correct definition by placing the letter of the term in the appropriate space.**

A. Ten-key keyboard
B. Prorate
C. Index a number
D. Discount
E. Home row
F. Register
G. Touch method
H. Credit balance

_______ 1. The middle row of keys (4, 5, 6) on a ten-key keyboard.

_______ 2. A negative balance obtained when the amount subtracted is greater than the amount added.

_______ 3. A keyboard arrangement in which there are ten numeric keys, with 1-9 arranged in three rows of three keys each, and an additional key or bar (0) at the bottom of the last row.

_______ 4. To depress the numeric keys of a number in order from left to right.

_______ 5. To divide or to assess proportionately.

_______ 6. A means of operating a ten-key keyboard by touch rather than by sight.

_______ 7. An amount subtracted from a regular price.

_______ 8. The inner mechanism of an electronic calculator where the computation is performed.

PART II: USING THE TOUCH SYSTEM

Project 1

INSTRUCTIONS: **State which finger is used to strike the following keys on a calculator or ten-key keypad.**

1. 4, 1, 7 keys ________________________________
2. Zero key ________________________________
3. 6, 9, 3 keys ________________________________
4. Operational keys to left of numeric keyboard ________________
5. Operational keys to right of numeric keyboard ________________
6. 5, 8, 2 keys ________________________________

Project 2

INSTRUCTIONS: **Using the ten-key keypad, find the correct answer for each of the following addition and subtraction problems. Show credit balances with a "-" or "CR." Record your answers on the sheet provided.**

1.
456
789
+ 123

2.
444
369
+ 258

3.
582
741
+ 963

4.
211
354
+ 160

5.
616
137
+ 248

6.
500
- 216

7.
824
- 650

8.
$2.50
-3.00
4.98
-1.20
+ -6.10

9.
1100
-900
501
486
+ 312

10.
615
302
- 725
- 302
+ 26

Project 3

INSTRUCTIONS: **Using the calculator or ten-key keypad, find the correct products for each of the following multiplication problems. Record your answers on the sheet provided.**

1. 55 x 25
2. 3.11 x .42
3. 915 x 19
4. 40 x 19
5. 67 x 19

Project 4

INSTRUCTIONS: **Using the calculator or ten-key keypad, find the correct quotients for each of the following division problems. Record your answers on the sheet provided.**

1. 470/33 =
2. 5/33 =
3. 1156/33 =
4. 177/5 =
5. 892/4 =
6. 228/6 =

Project 5

INSTRUCTIONS: **Using the touch method, complete each percentage problem below. Record your answers on the sheet provided.**

1. 20% of 244 =
2. 33.3% of 300 =
3. 69% of 540 =
4. 83% of 725 =
5. 17% of 950 =

Project 6

INSTRUCTIONS: **Figure the net price for each of the following, recording your answers on the sheet provided.**

1. $ 78.00 less 25%
2. $ 780.00 less 15%
3. $ 963.00 less 33%
4. $ 1540.00 less 8%
5. $ 6530.00 less 10%

COMPETENCY TEST ANSWER SHEET

PART II

Project 2

1.______________
2.______________
3.______________
4.______________
5.______________
6.______________
7.______________
8.______________
9.______________
10.______________

Project 3

1.______________
2.______________
3.______________
4.______________
5.______________

Project 4

1.______________
2.______________
3.______________
4.______________
5.______________
6.______________

Project 5

1.______________
2.______________
3.______________
4.______________
5.______________

Project 6

1.______________
2.______________
3.______________
4.______________
5.______________

ANSWERS TO ACTIVITIES

Activity 1

```
               INDEX
            H    I
REGISTER    O    S
            M D  C
    DECIMALSELECTOR
            R C  U
PLUS    T M O I  N
R       E U W M  T
OPERATIONAL   A
R    O  K TOTAL     E
A    U  E I   K     Q
T A  C  Y PERCENT   U
E D  H    L   Y     A
  D       I         L
  MEMORYRECALL M    S
  O       A    E    K
  D       T    M    E
CLEARKEY DIVISIONKEY
          O    R
CREDITBALANCE  Y
```

Activity 2

Project 1

A.	1.	2974	C.	1.	1050
	2.	2776		2.	1097
	3.	2856		3.	1229
	4.	2685		4.	1265
	5.	2865		5.	1465
B.	1.	4431	D.	1.	2336
	2.	4539		2.	2639
	3.	4358		3.	2823
	4.	4462		4.	2594
	5.	4252		5.	2817
				6.	2623
				7.	2311
				8.	2554
				9.	2633
				10.	3792

Project 2

A.	1.	138	B.	1.	-267
	2.	190		2.	-257
	3.	296		3.	-47
	4.	62		4.	-65
	5.	604		5.	-248
	6.	880		6.	-511
	7.	843		7.	-246
	8.	863		8.	-255
	9.	596		9.	-162
	10.	1855		10.	-23

Project 3

A.	1.	118.66	B.	1.	$ 517.13
	2.	587.495		2.	$ 4751.65
	3.	875.006		3.	$ 322.11
	4.	80.498		4.	$ 133.32
	5.	194.032		5.	$ 250.70

Project 4

A.	1.	90	B.	1.	1,200
	2.	360		2.	300
	3.	31.25		3.	43.92
	4.	1.60		4.	8,988
	5.	24.45		5.	9,996
	6.	27,025		6.	260
	7.	3,389.40		7.	1,170
	8.	10.45		8.	13
	9.	1,875		9.	21.45
	10.	58.08		10.	585

Project 5

A.	1.	25	B.	1.	13
	2.	5		2.	40.50
	3.	4.17		3.	34.64
	4.	61.07		4.	22.50
	5.	2.63		5.	20.64
	6.	4.88		6.	43.13
	7.	33.3		7.	28.75
	8.	30		8.	26.54
	9.	286.65		9.	17.25
	10.	.75		10.	38.33

Project 6

A.	1.	10.00	B.	1.	$12.50
	2.	50.00		2.	$8.60
	3.	16.45		3.	$21.00
	4.	3.60		4.	$45.00
	5.	100.50		5.	$16.50

Project 7

	Discount	Price
1.	$ 4.20	$ 23.80
2.	$ 9.00	$. 141.00
3.	$122.40	$2,937.60
4.	$ 36.00	$ 144.00
5.	$ 7.26	$ 14.74
6.	$ 21.50	$ 21.50
7.	$ 77.76	$ 894.24
8.	$145.60	$1,310.40
9.	$ 55.90	$ 503.10
10.	$ 15.78	$ 773.22

Project 8

Total Floor Space = 4190 sq. ft.

Total Rent Expense = $10,256.00

Percent of Total Floor Space	Prorated Share of Rental Expense
Men's Wear = 29%	$2,974.24
Misses = 35 %	$3,589.60
Junior Coordinates = 21%	$2,153.76
Junior Dresses = 15%	$1,538.40

COMPETENCY TEST ANSWERS

Part I

1.	E	5.	B
2.	H	6.	G
3.	A	7.	D
4.	C	8.	F

Part II

Project 1

1.	Index finger	4.	Index finger
2.	Thumb	5.	Little finger
3.	Ring finger	6.	Middle finger

Project 2

1.	1368	6.	284
2.	1071	7.	174
3.	2286	8.	-2.82
4.	725	9.	1499
5.	1001	10.	-.84

Project 3

1.	1,375	4.	760
2.	1.30	5.	1273
3.	17,385		

Project 4

1.	1424	4.	35.40
2.	.15	5.	223
3.	35.03	6.	38

Project 5

1.	48.80	4.	601.75
2.	99.90	5.	161.50
3.	372.60		

Project 6

1. $ 58.50
2. $663.00
3. $645.21
4. $1416.80
5. $5877.00

RESOURCES

TEXT/WORKBOOKS

THE ADMINISTRATIVE SECRETARY
Gregg Division/McGraw-Hill Book Co.

BANKING AND CREDIT OCCUPATIONS
Prentice-Hall Media

CENTURY 21 ACCOUNTING
South-Western Publishing Co.

CLERICAL PAYROLL PROCEDURES
South-Western Publishing Co.

DEVELOPING BOOKKEEPING SKILLS
AMSCO School Publications

OFFICE MACHINES
Houghton-Mifflin Publishing Co.

OFFICE MACHINES COURSE
South-Western Publishing Co.

OFFICE PROCEDURES, 2nd ed.
MPC Educational Publishers

SMALL BUSINESS MANAGEMENT
Delmar Publishers

SOFTWARE

MICROCOMPUTER KEYPAD OPERATIONS
1 disk and documentation for: Apple, TRS-80 Model III or IV, IBM-PC
Career Aids, Inc.

DATA ENTRY SIMULATION
Career Publishing, Inc.

PRACTICE SETS

ACTIVITIES HANDBOOK FOR TEACHING WITH THE HAND-HELD CALCULATOR
Allyn and Bacon

CAPITOL AUDITING SERVICE: A CALCULATOR SIMULATION
Houghton-Mifflin Publishing Co.

RPM UNLIMITED: A BUSINESS MACHINES PRACTICE SET
Gregg Division/McGraw-Hill Book Co.

COMPETENCY CHECKLIST

ESSENTIAL ELEMENTS: 75.87 (d)(3)(E),(m)(3)(D)

The student will be provided opportunities to demonstrate the ability to solve mathematical problems using the touch method on the electronic calculator/computer keypad.

OBJECTIVE:	**Students will be able to use the touch method on the electronic calculator or the microcomputer keypad to complete business and personal financial applications.**	**MASTERY**	**NON-MASTERY**
1.	**Apply the terms and definitions necessary for operating the electronic calculator in mathematical business problems.**	______	______
2.	**Demonstrate the ability to use the touch system on the electronic calculator for computation of simple and complex mathematical problems.**	______	______

STUDENT NAME______________________________

SUGGESTED UNIT LESSON PLAN

SECTION III: OPERATING OFFICE EQUIPMENT

UNIT III: COMPUTER APPLICATIONS

ESSENTIAL ELEMENTS: 75.87
(d)(1)(A)(B)(C)(3)(F)
(m)(1)(A)(B)(C)(3)(E)

ALLOCATED TIME: 10-20 Hours

UNIT OBJECTIVE: Students will be able to correctly key and format, using a word processing program on the microcomputer.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Define and use formatting and information processing terminology.
2. Define information processing.
3. Describe the steps in a document cycle.
4. Categorize the production features of word processing software.
5. Identify uses of function keys sometimes used with word processing software.
6. Create, revise, spell check, and print a hard copy of the document.
7. Produce documents to include the following format changes: line spacing, line alignment, type styles, and margin adjustments.

FOCUS: Keyboarding continues to be the primary means of data entry and manipulation; therefore, keyboarding skills and the knowledge of various keyboarded formats and applications are vital in business fields.

DOMAINS: Activities and competency tests have been designed to provide learning experiences utilizing the cognitive, psychomotor, or affective domains. Activities and competency tests are coded on the Activity and Competency Test Matrices.

BASIC SKILLS: Activities and competency tests have been designed to reinforce the basic skills of reading, writing, and/or mathematics. Activities and competency tests have been coded on the Activity and Competency Test Matrices.

CONTENT OUTLINE

I. Information processing

  A. Information processing applications

  B. Integrated information processing

  C. Components of information processing equipment

  D. Storage components

  E. Basic features

II. Document cycle

  A. Input

  B. Processing

  C. Output

  D. Distribution or communication of information

  E. Storage

  F. Retrieval

III. Production features

  A. Spelling checker

  B. Thesaurus

  C. Arithmetic functions

  D. Search feature

  E. Text enhancement features

IV. Function keys

  A. Special keys

    1. Help screen

    2. Exit

    3. Print

   4. Overtype/Insert
   5. Files

B. Functions of information processing software

   1. Help
   2. Formatting
   3. Entering and editing
   4. Printing
   5. Advanced features

SUGGESTED TEACHER ACTIVITIES

General Teacher Preparation

1. Preview unit.
2. Review unit objectives.
3. Make instructional analysis.
4. Assess student learning needs.
5. Decide on lesson domain: cognitive, psychomotor, or affective domain.
6. Select instructional materials based on instructional analysis and student learning needs.
7. Select instructional strategies based on lesson content and student learning needs.
8. Prepare lesson plans from the unit lesson.
9. Prepare additional instructional material.
10. Reserve necessary media and equipment.

Teacher Presentation

1. Present student objectives.
2. Establish rapport with students.
3. Review lesson objectives with students.
4. Relate lesson to prior or future learning.
5. When appropriate, encourage student interaction through questioning, discussions, or some other strategy.
6. Emphasize the value/importance of the unit or activity.
7. Allow time for closure of a lesson.

Reteach Activities

1. Identify area(s) of weakness from results of evaluation.
2. Select unit activities not previously used.
3. Use additional resources and/or create materials based on student learning needs.
4. Use a different teaching strategy in reteaching.
5. Retest.

Specific Teaching Suggestions

1. Develop a wallchart or handouts of the commands and options for the software.
2. Assemble samples of different categories of documents that might have been produced by a word processor. These can be displayed in the classroom.
3. Duplicate worksheets on types of documents and word processing features.
4. Prepare transparencies to use with the lecture and discussion, outlining the document production procedures that will be used.
5. For each activity, review the appropriate instructions specific to your computer and/or word processing software requirements.
6. Make available a hands-on tutorial for individual instruction in the use of the software.
7. Ask students to share with the class the various examples of word processing documents they have collected.
8. Arrange a competition among individuals or teams to produce assigned documents correctly, in the shortest time.
9. Produce transparencies illustrating the features of the software to be used. Have the students make a list of these features.
10. Arrange a visit to a school office or local business where students can observe the "life" of a document, from input to storage and retrieval.
11. Discuss the function keys that are specific to your word processing software program. Make sure the students take notes.
12. Use a flowchart to illustrate the path of a document as it proceeds through the processing cycle.

ACTIVITY MATRIX

Activities	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
1 Project 1	X			X		
Project 2	X			X		
2 Project 1	X				X	
Project 2	X				X	
Project 3	X	X		X	X	
Project 4	X	X		X	X	
3	X	X			X	
4 Project 1	X				X	
Project 2	X	X			X	
5 Project 1	X			X	X	
Project 2	X			X	X	
Project 3	X			X	X	
Project 4	X	X		X	X	
6 Project 1	X				X	
Project 2	X	X			X	
7 Project 1	X				X	
Project 2	X			X		

COMPETENCY TEST MATRIX

Parts	**Domains**			**Basic Skills**		
	Cognitive	**Psycho-motor**	**Affective**	**Reading**	**Writing**	**Math**
I	X			X		
II	X				X	
III	X				X	
IV	X				X	
V Project 1	X	X		X	X	
Project 2	X	X		X	X	
VI Project 1	X	X		X	X	
Project 2	X	X		X	X	

COMPETENCY TEST

PART I: TERMINOLOGY

INSTRUCTIONS: Match the correct term with the proper definition.

A. Draft
B. Copy
C. Double-space
D. Hard copy
E. Footer
F. Typeover
G. Procedure
H. Software
I. Block
J. Move
K. Print
L. Revision
M. Center
N. Command keys
O. Hyphens
P. Word wrap
Q. Insert
R. Header
S. Soft copy
T. Window
U. Enter
V. Form letter
W. Location keys
X. Applications
Y. Justify

________ 1. A rough, unedited copy.

________ 2. Keys that request the word processing software to instruct the processor to do something.

________ 3. A line of text which appears at the top of each page.

________ 4. The first line of a paragraph which is printed at the bottom of a page, before a page break.

________ 5. A condition in which characters are replaced, rather than inserted, when typed into existing text.

________ 6. To produce a hard copy from a computer or word processor.

________ 7. Written, typed, or printed copy; a document.

________ 8. Use of information processing software, such as in creating letters, reports, and mailing lists.

________ 9. A key used to find information saved in temporary memory or on permanent storage media.

________ 10. Editing and making typewritten corrections.

________ 11. A feature that sends text to the beginning of the next line when you type beyond the margin.

________ 12. Print with straight margins on both sides.

________ 13. The same letter to be sent to a number of different people, usually prepared in advance and duplicated.

________ 14. Leaving one blank line space between displayed or printed lines of copy.

________ 15. A line of text repeated at the bottom of each page.

________ 16. The step-by-step process for completing a job.

________ 17. A selected portion of text which can be operated upon as a unit.

________ 18. To reproduce a block within a document or in another document.

________ 19. Instructions that tell the computer the operating instructions/commands of the word processor.

________ 20. A feature which permits dividing words at the end of a line, permitting a more even right margin.

________ 21. Information stored on a magnetic medium or on a CRT screen.

________ 22. Adding characters, words, spaces, or lines to existing text.

________ 23. To balance text or headings between margins.

________ 24. To input keystrokes into the CPU.

________ 25. Changing the location of a block of text within a document.

PART II: DOCUMENT CYCLE

INSTRUCTIONS: **Using complete sentences, proper punctuation, and correct grammar, list and explain the six steps in the document cycle.**

1)

2)

3)

4)

5)

6)

PART III: PRODUCTION FEATURES

INSTRUCTIONS: For each of the following production features, explain how the feature is used.

1) Spelling checker

2) Thesaurus

3) Arithmetic functions

4) Search

5) Text enhancement

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PART IV: FUNCTION KEYS

INSTRUCTIONS: Give a brief definition and use an example for each of the following.

1) Help screen

2) Print

3) Overtype/insert

4) Margins

5) Tab stops

6) Line spacing

7) Justification

8) Macros

PART V: PRODUCING A MAILABLE DOCUMENT

Project 1

INSTRUCTIONS: **Using the following source document, produce a document using single spacing with double spacing between paragraphs. Use 1 1/2-inch margins. Use the spell check feature, then save your document and print one copy.**

EDUCATION

Teachers use computers for recordkeeping and compiling grades. They use computer-assisted instruction programs to help students learn math, science, and social studies, to develop reading skills.

Guidance counselors use a computer to help students select courses and plan careers.

Librarians use computers in place of card files. At the check-out desk, a computer records date, name of book, etc., and also runs a check to see if the card is current and there are no overdue books charged to it.

PART V (Continued)

Project 2

INSTRUCTIONS: Using the following source document, produce a mailable letter in the full-blocked style. Supply today's date, use a computer and the spelling checker, save your work, and print one copy of the document on letterhead paper provided by your teacher.

Today's date

Mrs. Jennifer Meacham, Manager
Customer Relations Department
George's Office Machines, Inc.
6104 Walnut Street
Pittsburgh, PA 15206-3528

Dear Mrs. Meacham:

Please send me a list of distributors in our area who could demonstrate the latest model in your line of copying equipment.

The copier we are now using was adequate when we purchased it. However, as our institution has grown, so have our needs for equipment that can perform more functions than simply copying. Specifically, we are looking for a copier that can do the following:

1. Copy materials of various sizes up to 11" x 14".
2. Reproduce the colors of the original document.
3. Reduce and enlarge.

We have heard so many good things about your newest copier that we would like to see if it will fulfill our requirements. We are anxious to upgrade our duplicating equipment to meet our present and future needs, and we look forward to receiving a list of your distributors who may be able to assist us to do so.

We look forward to working with one of your distributors in the near future. If you have any questions concerning this request, contact me at (214) 687-3185.

Sincerely,

Joseph E. Larsen
Purchasing Agent

ddm

PART VI: FORMATTING WITH WORD PROCESSING SOFTWARE

Project 1

INSTRUCTIONS: **Change the format for the document you produced in Part II to use one-inch margins and five-space indentions, and double-space the document. Save the document under another name. Print one copy.**

Project 2

INSTRUCTIONS: **Change the format for the document you typed in Part IV to modified-blocked style. Save the document under a different name. Print one copy of the document.**

ANSWERS TO ACTIVITIES

Activity 1

Project 1

1.	G	7.	C	13.	U	19.	Q
2.	K	8.	P	14.	D	20.	S
3.	A	9.	W	15.	R	21.	M
4.	G	10.	O	16.	X	22.	B
5.	I	11.	E	17.	V	23.	T
6.	H	12.	N	18.	L	24.	F

Project 2

1.	R	7.	J	13.	S	19.	A
2.	E	8.	V	14.	K	20.	U
3.	O	9.	P	15.	F	21.	T
4.	H	10.	L	16.	G	22.	X
5.	N	11.	M	17.	I	23.	B
6.	W	12.	Q	18.	D	24.	C

Activity 2

Project 1

1. **Input**--information is read from source documents that may be in many forms (handwritten, typed, extracted from several sources, or transferred from another document), and key-entered into a computer using word processing software.

2. **Processing**--once entered, the text can be edited, revised, combined, rearranged, formatted, or any combination of actions desired to reach its completed form. This involves the use of various features of the word processing software. Regardless of the final distribution, the processed document is normally saved on disk at this point.

3. **Output**--the completed document is printed on a local or remote printer, according to the desired form. One or many copies may be produced. Often, each copy is personalized with an individual's name and address by a word processing feature called "mail/merge."

4. **Distribution or communication of information**--while the first three steps are most often completed by one individual, the finished documents are frequently turned over to another worker for distribution. This step includes mailing and/or hand delivering for in-house distribution. Some type of record or checksheet may be used to verify the date and destination(s).

5. **Storage**--a "hard" copy may be filed for later reference. In the case of correspondence, it may be filed under the name of the recipient. Memos or bulletins are often filed by category. The saved version on disk may also be stored, with date and identification, particularly if all or part of the document may be used again.

6. **Retrieval**--the filed document may be pulled out for action or consideration by a recipient, or for reference by the originator. The stored disk version will be retrieved when a modified form of the document is needed at a later date.

Projects 2-4 Evaluated to the satisfaction of the instructor.

Activities 3-6 Evaluated to the satisfaction of the instructor.

Activity 7

Project 1 Descriptions evaluated to the satisfaction of the instructor.

A. **Help** invokes immediate explanations related to selected screen status.

1. Supports use of the software package.
2. It is available within the software package without looking in a book.
3. May be available by topic, function, or level.

B. **Formatting** is the process of changing the left, right, top, and bottom margins, or changing the line spacing.

1. Margins
2. Tab stops
3. Paragraph indents
4. Character format

C. **Entering and editing** allows information to be easily created and reviewed.

1. Insert-and-replace mode
2. Deleting
3. Reformatting
4. Line spacing
5. Block operations
6. Moving or cut/paste
7. Copy
8. Search and replace

D. **Printing** is a means of interpreting specific print options from the screen display to the printer.

1. Top and bottom margins
2. Right justification
3. Headers and footers
4. Page numbers
5. Pitch
6. Page breaks
7. Merge printing

Project 2

1.	D	7.	K
2.	I	8.	E
3.	G	9.	A
4.	B	10.	F
5.	H	11.	J
6.	C		

COMPETENCY TEST ANSWERS

Part I

1.	A	7.	D	13.	V	19.	H
2.	N	8.	X	14.	C	20.	O
3.	R	9.	W	15.	E	21.	S
4.	T	10.	L	16.	G	22.	Q
5.	F	11.	P	17.	I	23.	M
6.	K	12.	Y	18.	B	24.	U
						25.	J

Parts II-VI Evaluated to the satisfaction of the instructor.

RESOURCES

TEXT/WORKBOOKS

101 WORD PROCESSING EXERCISES
Gregg Division/McGraw-Hill Publishers

ADVANCED KEYBOARDING APPLICATIONS
Glenco Publishing

ADVANCED WORD PERFECT
Borland, Osborne, and MicroPro
McGraw-Hill Publishers

APPLEWORKS: INTEGRATED APPLICATIONS FOR MICROCOMPUTERS
South-Western Publishing Co.

CENTERING TABLES AND FORMS
South-Western Publishing Co.

CENTURY 21 KEYBOARDING, FORMATTING, AND DOCUMENT PROCESSING
South-Western Publishing Co.

COMMUNICATION SKILLS FOR THE PROCESSING OF WORDS
South-Western Publishing Co.

COMMUNICATION SKILLS FOR WORD PROCESSING
Harcourt, Brace, and
Jovanovich Publishing Co.

CONSULTAMATION, INC.: WORD PROCESSING PRACTICE AND APPLICATIONS
Gregg Division/McGraw-Hill Publishers

COPY PROCESSING
Glenco Publishing Co.

DEVELOPING CONCEPTS FOR WORD PROCESSING
Gregg Division/McGraw-Hill Publishers

DICTIONARY OF WORD PROCESSING
Glenco Publishing

DISPLAY WRITE 4
Wordware Publishing

DISPLAY WRITE FOUR: THE COMPLETE REFERENCE
Borland, Osborne, and MicroPro
McGraw-Hill Publishers

THE ELECTRONIC OFFICE AND YOU: WORD PROCESSING CONCEPTS
Gregg Division/McGraw-Hill Publishers

FRAMEWORK III
Wordware Publishing

GLENCO WORD PROCESSING: A PRACTICAL GUIDE TO CONCEPTS AND APPLICATIONS
Glenco Publishing Co.

INTEGRATED KEYBOARDING/COMMUNICATION SKILLS
South-Western Publishing Co.

INTRODUCTION TO WORD PROCESSING
South-Western Publishing Co.

INTRODUCTION TO WORD PROCESSING
Bobbs-Merrill Educational Publishers

LETTERS AND MEMOS
South-Western Publishing Co.

MANAGEMENT OF WORD PROCESSING OPERATION
The Benjamin/Cummings Publishing Co., Inc.

MICROSOFT WORD 5.0
Wordware Publishing

MICROSOFT WORD FOR THE MACINTOSH: THE COMPLETE REFERENCE
Borland, Osborne, and MicroPro
McGraw-Hill Publishers

MICROSOFT WORD MADE EASY: THIRD EDITION
Borland, Osborne, and MicroPro
McGraw-Hill Publishers

MICROSOFT WORD: SECRETS, SOLUTIONS, SHORTCUTS
Borland, Osborne, and MicroPro
McGraw-Hill Publishers

THE OFFICE
South-Western Publishing

OFFICE PROCEDURES AND TECHNOLOGY
Milady Publishing Co.

PFS PROFESSIONAL WRITE
Borland, Osborne, and MicroPro
McGraw-Hill Publishers

REPORTS, MINUTES, AND SCHEDULES
South-Western Publishing

SKILL BUILDING EXERCISES FOR THE WORD PROCESSOR
Dictation Disk Co.

TEACHING WORD PERFECT
Career Publishing, Inc.

USING WORD PERFECT FOR THE MACINTOSH
Borland, Osborne, and MicroPro
McGraw-Hill Publishers

WORD/INFORMATION PROCESSING CONCEPTS AND APPLICATIONS
The Charles E. Merrill Publishing Co.

WORD PERFECT
Careers

WORD PERFECT
Advanced Applications Handbook
Wordware Publishing

WORD PERFECT 1.01
For the Macintosh
Wordware Publishing

WORD PERFECT 5.0
Wordware Publishing

WORD PERFECT 5.0: THE COMPLETE REFERENCE
Borland, Osborne, and MicroPro
McGraw-Hill Publishers

WORD PERFECT 5.0 MADE EASY
Borland, Osborne, and MicroPro
McGraw-Hill Publishers

WORD PERFECT 5.0: SECRETS, SOLUTIONS, SHORTCUTS
Borland, Osborne, and MicroPro
McGraw-Hill Publishers

WORD PERFECT: POWER USERS GUIDE
Borland, Osborne, and MicroPro
McGraw-Hill Publishers

WORD PROCESSING
Milliken Publishing Co.

WORD PROCESSING, A COMPREHENSIVE TRAINING PROGRAM
ESP, Inc. Productions

WORD PROCESSING APPLICATION FOR ELECTRONIC TYPEWRITER
Houghton-Mifflin Publishing Co.

WORD PROCESSING CONCEPTS
South-Western Publishing Co.

WORDSTAR 4.0 MADE EASY
Borland, Osborne, and MicroPro
McGraw-Hill Publishers

WORDSTAR 5.0 MADE EASY
Borland, Osborne, and MicroPro
McGraw-Hill Publishers

WORDSTAR INSTRUCTION
Career Publishing

WORDSTAR PROFESSIONAL
Wordware Publishing

WORDSTAR
2000 PLUS RELEASE 3
Career Publishing

SOFTWARE

APPLEWORKS
Apple IIe, IIc
Apple Computer

APPLICATIONS USING THE PC
South-Western Publishing Co.

ELECTRIC PENCIL PC
IBM PC, XT, AT, 128k
Disk Count Data

FRIENDLY WRITER
IBM PC
Career Aids

HELPFUL WRITER, FOR BANK STREET WRITER
Apple II, IIe, IIc 64k
Career Aids

IBM ASSISTANT PROGRAM
IBM 128k
IBM Corporation

IBM REPORTING ASSISTANT
IBM 128k
IBM Corporation

LAZY WRITER WORD PROCESSING SYSTEM
TRS-80
Disk Count Data

THE LETTER EDITOR
Apple II, IIe, IIc, 48k
Career Aids

MICROSOFT WORD
Apple IIgs, IIe, IIc 48k
Macintosh, Macintosh +, IBM PC, XT, AT, 320k
Microsoft

MICROTOOLS
Apple IIe, IIc, IBM PC
South-Western Publishing Co.

MULTIMATE ADVANTAGE II
IBM PC, XT, AT, 384k
Ashton-Tate

MULTISCRIBE
Apple II, IIe, IIc, ProDOS, 48k
Career Aids

PFS: WRITE, PFS: WRITE PROFESSIONAL
Apple IIe, IIc, ProDOS, 128k
IBM PC or XT 320k

SENSIBLE GRAMMAR
Apple II, IIgs, IIe, IIc 128k
Career Aids

TEXTMERGE
TRS-80
Disk Count Data

WORD PERFECT
IBM PC/Apple II family
Career Aids

WORD PROCESSOR STARTER PACKAGE
IBM PC/Apple II family
Word Perfect Corp.

WORDSTAR EXTRA-EASY
IBM PC/Apple II family
Career Aids

WORDSTAR PROFESSIONAL
IBM PC/Apple II family
Micropro

THE WRITE APPROACH
Apple II, IIe, IIc 64k
Version I and II available
Career Aids

MEDIA

BASIC SKILLS FOR WORD PROCESSING
South-Western Publishing Co.

BASIC SKILLS IN WORD PROCESSING-THE UNIVERSAL APPROACH
Filmstrips, guides, and manual
South-Western Publishing Co.

FORMATTING BUSINESS REPORTS
Slide tape, activities
ETSU Educational Development and Training Center

GENERATING DOCUMENTS
2 filmstrips, cassettes, guide
Prentice-Hall Media

HELLO WORDSTAR
Video
RMI Media Productions

INTRODUCTION TO APPLEWORKS WORD PROCESSING
Video
Career Publishing, Inc.

INTRODUCTION TO MICROSOFT WORD
Video
Career Publishing, Inc.

INTRODUCTION TO WORD PERFECT
Video
Career Publishing, Inc.

INTRODUCTION TO WORD PERFECT FOR THE APPLE
Video
Career Publishing, Inc.

AN INTRODUCTION TO WORD PROCESSING
3 filmstrips, cassettes, guide
Prentice-Hall Media

INTRODUCTION TO WORDSTAR PROFESSIONAL
Video
Career Publishing, Inc.

MICROSOFT WORD, Level I
Video
Career Publishing, Inc.

MICROSOFT WORD, Level II
Video
Career Publishing, Inc.

KEYBOARDING AND EDITING
4 filmstrips, cassettes, guide
Prentice-Hall Media

PREPARING AND DISTRIBUTING NOTICES FOR MEETINGS
Slide tape, activities
ETSU Educational Development and Training Center

USING WORDSTAR
Video
RMI Media Productions

USING VOLKSWRITER 3
IBM PC & compatibles--Video
RMI Media Productions, Inc.

WORD PERFECT, Level II
Video
Career Publishing, Inc.

WORD PERFECT, Level III
Video
Career Publishing, Inc.

WORD PROCESSING AND CHANGING OFFICE ENVIRONMENT
Student activities, projects, filmstrips
South-Western Publishing Co.

WORD PROCESSING: COMMUNICATIONS AND TECHNOLOGY
Video, filmstrip
Career Aids

WORD PROCESSING IN ACTION
Sound filmstrips
Glenco Publishing Co.

WORDSTAR PROFESSIONAL, Level II
Video
Career Publishing, Inc.

SIMULATIONS

THE CORRESPONDENCE SECRETARY-SIMULATION PROJECT
Milady Publishing

GENERAL OFFICE ASSISTANT SIMULATION-SUNCOAST CIVIC CENTER
South-Western Publishing Co.

MERCURY SYSTEMS, INC.: PRACTICE SET IN WORD/INFORMATION PROCESSING
Gregg Division/McGraw-Hill

SUN ISLAND HOTEL--A WORD PROCESSING SIMULATION
Harcourt, Brace, and Jovanovich Publishing Co.

TRIANGLE BROADCASTING CO.: A WORD/INFORMATION PROCESSING SIMULATION
Bobbs-Merrill Educational Publishers

THE WORD PROCESSING SPECIALIST, INFOTEC-OFFICE JOB SIMULATION
South-Western Publishing Co.

COMPETENCY CHECKLIST

ESSENTIAL ELEMENTS: 75.87 (d)(1)(A)(B)(C)(3)(F)
(m)(1)(A)(B)(C)(3)(E)

The student will be provided opportunities to demonstrate the skills involved in keyboarding; apply appropriate procedures for proofreading and correcting errors; demonstrate and identify information processing concepts in keyboarding; and demonstrate the ability to enter and retrieve data on a microcomputer.

OBJECTIVE:	Students will be able to correctly key and format, using a word processing program on the microcomputer.	MASTERY	NON-MASTERY
1.	**Define and use formatting and information processing terminology.**	______	______
2.	**Define information processing.**	______	______
3.	**Describe the steps in a document cycle.**	______	______
4.	**Categorize the production features of word processing software.**	______	______
5.	**Identify uses of function keys sometimes used with word processing software.**	______	______
6.	**Create, revise, spell check, and print a hard copy of the document.**	______	______
7.	**Produce documents to include the following format changes: line spacing, line alignment, type styles, and margin adjustments.**	______	______

STUDENT NAME ________________________________

SECTION III: OPERATING OFFICE MACHINES

UNIT I: REPROGRAPHICS

UNIT OBJECTIVE: The students will be able to apply the concepts and skills related to layout and design.

MODULE A: LAYOUT AND DESIGN

STUDENT COMPETENCIES: The student shall be provided opportunities to:

1. Identify terminology related to layout and design.
2. List tools, supplies, and equipment used in preparing a layout.
3. Convert between scales or line gauge measuring systems.
4. Identify copy layout preparation considerations.
5. List procedures to use when making a layout.
6. Match type and letter styles to message of layout.
7. Identify paper types and their uses.
8. Prepare a layout including:
    a. Thumbnail sketches.
    b. Rough layout.
    c. Comprehensive layout.

FOCUS: The ability to produce quality layout and design products is essential in the printing industry or in an office setting.

TERMINOLOGY

Basic Layout and Design

Ascender	The part of a lowercase letter above the height of a lowercase x, such as h, d, or b.
Balance	Arranging the characters on a page in a pleasing way.
Base line	The line of writing on which the main part of the letters rest.
Base sheet	A paper on which the cutouts are placed.
Bevelling	A method of tearing the paper in the cut-and-paste stage used to prevent an outline shadow.
CVI	Center of visual impact, or focal point of page.
Centering scale	A scale to find the center of the paper.
Comprehensive layout	The layout in final camera-ready copy (or ready for copies to be made if camera is not used).
Cutouts	Artwork, lettering, typewritten materials, etc., which have been cut out to be placed on a base sheet.
Descender	The part of a letter below the base line.
Emphasis	Arrangement of elements on a page to attract most attention to the most important element.
Fitness	Matching the paper and type to the message being printed.
Font	A set of characters with the same typeface, type size, and weight.
Guide sheet	The paper placed under the base sheet which helps in drawing the guidelines (vertical and horizontal lines) on the base sheet.
Kern, kerned type	The part of the letter face that overhangs the letter body.
Layout	Process to put together all pieces of composition into a form that meets quality desired and requirements of the client.
Leading	Spacing between letters or between lines of type.
Light table	A glass-top table with a light under the glass; used for lining up lettering and stripping negatives.
Line gauge	A scale used by a printer, showing both inches and picas.

Line of golden proportion	Above center on a page.
Paste-up master	A sheet to which cutouts have been waxed.
Pica	A unit of measure for sizing printer's type; there are 6 picas to 1 inch.
Point	A unit of measure for sizing printer's type; there are 72 points to 1 inch or 12 points to 1 pica.
Pressure-sensitive letters	Preprinted letters on a waxed surface that can be transferred to another paper.
Printer's line gauge	A ruler showing inches, points, and picas.
Rough draft	A layout drawn to actual size with the fine points not included.
Serif	A light line or stroke coming from the main stroke in a letter.
Spacing	Arranging words or letters in proper intervals.
Thumbnail sketch	The beginning ideas of layouts done on a small scale to choose best arrangement.
Tone	Relating the style of type to the message.

Measurement Terminology

Body size	Measurement from the bottom of the descender to the top of the ascender.
Dimension	Measurement in length, width, height, or distance around.
Eighth	A measure of length containing 1/8 inch.
Em	The square of a given type size.
En	One-half the width of the square of a given type size.
Foot	A measure of length containing 12 inches.
Fraction	A part of a whole number (example: 1/8, 1/4, 1/2).
Graduation	The mark on a measuring tool indicating a certain size or amount.
Half	A measure of length, when referring to inches, consists of 1/2 inch.

Inch	A measure of length equal to 1/12 foot.
Measurement	The act of finding the size of an object.
Pica	A unit of measure for sizing printer's type; there are 6 to 1 inch.
Point	A unit of measure for sizing printer's type; 72 to 1 inch or 12 to 1 pica.
Quarter	A measure of length consisting of 1/4 inch.
Sixteenth	A measure of length consisting of 1/16 inch.
Whole number	Any natural number that is not broken into parts (example: 1, 2, 3, 4).
Yard	A measure of length equal to 3 feet, or 36 inches.

UNIT OVERVIEW

I. Tools, supplies, and equipment used in basic layout and design

   A. Tools

      1. **Ruler**--used for measuring and drawing lines.
      2. **T square**--ruler with a T on the end used to draw straight lines.
      3. **Burnisher**--used for stencils and for applying pressure-sensitive letters. May be a stylus or a roller.
      4. **X-acto knife**--sharp-pointed object used for cutting.
      5. **Printer's line gauge**--also called a printer's ruler.
      6. **Triangle**--three-sided template.
      7. **Template**--flat, plastic device used to facilitate graphics.

   B. Supplies

      1. Paper stock
      2. Rubber cement or wax
      3. Clear tape
      4. Masking tape
      5. Grids
      6. Eraser
      7. White-out
      8. Nonreproducing pencil
      9. Pencil
      10. Pressure-sensitive letters and tape
      11. Clip art

   C. Equipment

      1. Waxer
      2. Light table

3. Strip printer

4. Typewriter

5. Computer

II. Measurement

A. Procedures for measuring

1. Be sure to place the ruler at the beginning of the measurement on the ruler.

2. Be sure to place the ruler at the beginning of the object being measured.

3. Know the scale graduation of the ruler--noting that the graduation lines are of different lengths.

4. Know how close the measurement must be.

B. Units of measurement

1. Point

a. Is smallest unit of measurement.

b. Used to measure type, body size, and leading.

c. Equals approximately 1/72 of an inch.

2. Pica

a. Equals exactly 12 points.

b. Used to measure line length.

c. Six picas equal approximately one inch.

3. Word spaces

a. **Em**--the square of the size of any type.

Example: An em in 12-point type measures 12 x 12 points; in 10-point type, it measures 10 x 10 points.

b. **En**--one-half the width of the em.

c. **Quad**--blank type used to indent and to space out at the ends of lines in type composition.

d. **3-Em space**--1/3 of an em, normal spacing between words.

e. **Thin space**--usually the 4- and 5-em space.

C. Relationships of points, picas, and inches

Points	**Picas**	**Inches**
9	3/4	1/8
18	1 1/2	1/4
27	2 1/4	3/8
36	3	1/2
45	3 3/4	5/8
54	4 1/2	3/4
63	5 1/4	7/8
72	6	1

D. Measuring type

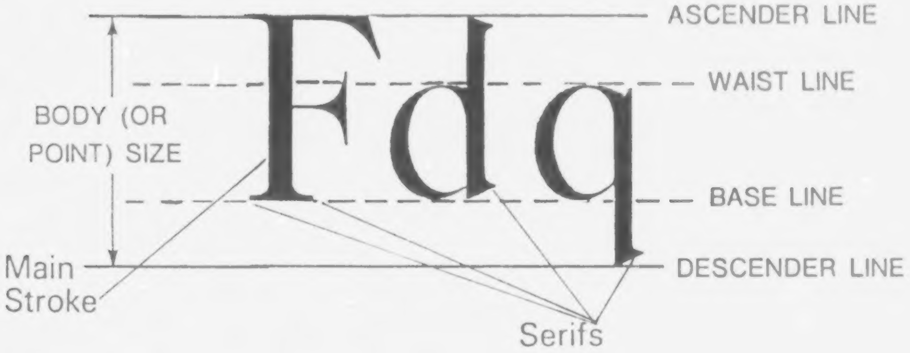
1. Body size

a. Refers to height of the particular type.

b. Measured in points with line guage.

c. Measured from bottom of "descender" to top of "ascender."

d. Type 12 points or smaller is known as *body text* type, while type 14 points or larger is known as *display* type.


ASCENDER LINE
WAIST LINE
BODY (OR POINT) SIZE
Fdq
BASE LINE
Main Stroke
DESCENDER LINE
Serifs

   2. Line length
      a. Known also as *measure*.
      b. Measured in picas with a line gauge.
      c. Should be appropriate to type size.

E. Printer's line gauge measures points, picas, and inches.
   1. Devised for measuring print.
   2. Invented by Pierre Fourierin in 1737.
   3. Adopted by U.S. in 1887.
   4. Only measuring device used by U.S. printers.

F. Points and picas are used to measure and designate type sizes.
   1. Point/inch ratios are 1 point to 1/72 inch and 12 points to 1 inch.
   2. Pica/inch ratio is 6 picas to 1 inch.

III. Copy preparation considerations
   A. Type of equipment used to make multiple copies
      1. **Thermal mastermaker**--used to make a duplicated master for the fluid duplicator.
      2. **Electronic stencilmaker**--used to prepare a stencil for the stencil duplicator.
      3. **Photocopier**--used to make photocopies.
      4. **Platemaking process**--used to prepare offset masters for the offset duplicator.
   B. Type of paper to be used
   C. Color of ink to be used
   D. Type of letter style and size to be used
   E. Photographs and illustrations to be used
   F. Effect or tone to be displayed

1. Formal message needs formal type.
2. Strong, powerful message uses bold type.
3. Light and airy message takes dainty type.
4. Informal message employs informal type.

G. Use of white space and simplicity

1. White space affects the quality and readability of material to be printed.
2. Simplicity
    a. Too many different type styles should be avoided.
    b. Fancy type styles can ruin the effectivenss of a design unless they are used carefully and sparingly.

H. Type of balance to display

1. Formal balance
    a. Each item that appears on one side of the layout also appears on the other side.
    b. Usually built around a vertical center line.
2. Informal balance
    a. Items do not appear on both sides of the layout.
    b. Items are distributed so their weights balance each other.

IV. Layout procedures

A. Purposes of a layout

1. Attract attention--eye-catching.
2. Create interest.
3. Create desire.
4. Tell how to satisfy the desire.

B. Stages of developing a layout

1. Thumbnail sketches

G-17

a. Small sketches showing ideas for layout

b. Method of determining best layout

2. Rough layout

a. Shows full size of layout.

b. Gives idea of size of illustration and type to use.

c. Assists in visualizing the spacing, balance, and emphasis.

3. Comprehensive layout

a. Will look, as close as possible, like the finished product.

b. Will show sizes of types, illustrations, and spaces marked for photographs. (**NOTE:** Photographs may be enlarged or reduced if needed.)

c. Must be approved before printing.

V. The type of letter style and size used

A. Typewriter element styles

1.	Italics	*abcdefghijklmn*	*ABCDEFGHIJKLMN*
2.	Script	*abcdefghijklmn*	ABCDEFGHIJKLMN
3.	Adjutant	abcdefghijklmn	ABCDEFGHIJKLMN
4.	Orator	ABCDEFGHIJKLMN	ABCDEFGHIJKLMN
5.	Courier	abcdefghijklmn	ABCDEFGHIJKLMN
6.	Prestige elite	abcdefghijklmn	ABCDEFGHIJKLMN
7.	Prestige pica	abcdefghijklmn	ABCDEFGHIJKLMN
8.	Gothic	abcdefghijklmn	ABCDEFGHIJKLMN

B. Lettering (refers to nontyped letters)

1. Gothic

ABCDEFGHIJKLMN

2. Roman ABCDEFGHIJKL

3. Script *ABCDEFG*

C. Matching type styles

1. Type style and paper should be in harmony.

2. Tone of the message should be considered when choosing type.

a. Formal message needs formal type.

b. Forceful message uses bold type.

c. Comical message takes informal type.

VI. Paper characteristics and classifications

A. Paper selection considerations

1. Purpose for the paper

2. Paper grain

3. Paper finish

4. Cost

5. Paper size

B. **Paper grain**--direction the fibers run.

1. **Vertical or long grain**--better for feeding into duplicating machines.

2. **Horizontal or short grain**--better for typing and filing.

C. Tests for grain direction

1. **Tearing**--tear sheet from the end and form the side; cleanest tear is with the grain direction.

2. **Folding**--fold and crease paper sharply in both directions; the smoothest crease is with the grain.

3. **Bending**--hold sheet first at one edge, then the other; the side producing the greatest sag is the direction of the grain.

D. Types of paper finishes

1. Coarse, smooth, or textured
2. Glossy or dull
3. Hard or soft

E. Determining the front side of the paper

1. The front side provides the best typing and duplicating.
2. The watermark is right side up.
3. Paper is packaged so that it is lying front side up as the label is read.
4. Usually a silver coin will make a mark on the front side.

F. Paper measurements

1. **One quire**--24-25 sheets
2. **One ream**--500 sheets
3. **One bundle**--2 reams
4. **One bale**--5 bundles

G. Paper sheet sizes

1. Regular or standard paper is 8 1/2 x 11 inches.
2. Legal-size paper is 8 1/2 x 14 inches.
3. Baronial-size paper is 5 1/2 x 8 1/2 inches.
4. Monarch-size paper is 7 1/4 x 10 1/2 inches.
5. Official-size paper is 8 x 10 1/2 inches.

H. Types of paper classifications

1. Bond paper
    a. Used for printing letterhead and office forms.
    b. Quality bond paper has a watermark.
    c. Has 12- to 24-pound base weight.
2. Bristol paper
    a. Used for index cards, business cards, and announcements.
    b. Is thicker than bond paper.
3. Duplicating bonds (for fluid duplication)
    a. Has a slick, smooth surface to control the quality of dye.
    b. Has 16- to 110-pound base weight.
    c. Most common is 16-pound weight.
4. Book paper
    a. Used in textbooks.
    b. Comes coated or uncoated.
    c. Commonly has 18-pound base weight.
5. Mimeo-bond paper
    a. Has a course texture for absorbing ink.
    b. Commonly found in 16-, 20-, 24-, and 28-pound base weights.
6. Cover paper
    a. Used for covers of books, brochures, menus, etc.
    b. Base weights are heavy with a 65-pound standard weight.
    c. Comes coated and uncoated.
7. Offset paper
    a. Has a sizing added to resist the moisture of offset printing.
    b. Commonly found in 50-, 60-, or 70-pound base weights.
8. Thin papers

        a. Includes onionskin, manifold, and tissue.

        b. Has 9-pound base weight.

    9. Print papers

        a. Includes newsprint for newspaper.

        b. Has a soft, nondurable, highly absorbent finish.

    10. Tag board

        a. Has a high finish but a coarse texture to give a good writing surface.

        b. Used for identification tags, craft wrapping, etc.

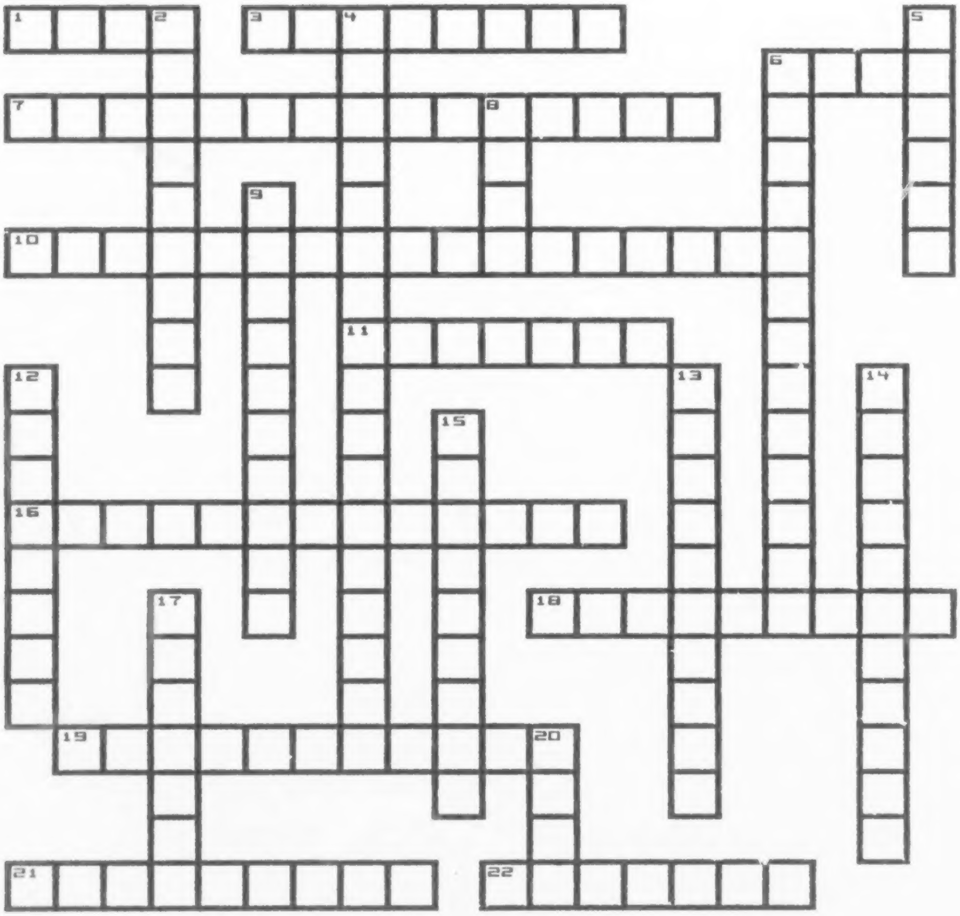
I. Paper moisture content has a great deal to do with the condition of the paper.

    1. Paper becomes wavy across the grain when dry paper absorbs moisture at the exposed edges.

    2. The edges of paper shrink when moist paper is in dry air.

    3. Paper that is poorly made will often shrink or curl.

ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE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22

ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE CLUES

ACROSS CLUES

1. A measure of length equal to 3 feet or 36 inches.

3. Arrangement of elements on a page to attract most attention to the most important element.

6. A unit of measure for sizing printer's type; there are 6 to 1 inch.

7. The beginning ideas of layouts done on a small scale to choose best arrangement.

10. Preprinted letters on a waxed surface that can be transferred to another paper.

11. Arranging words or letters in proper intervals.

16. The layout in final camera-ready copy or ready for copies to be made if camera is not used.

18. A scale to find the center of the paper.

19. The act of finding the size of an object.

21. A method of tearing the paper in the cut-and-paste stage used to prevent an outline shadow.

22. Spacing between letters or between lines of type.

DOWN CLUES

2. Measurement in length, width, height, or distance around.

4. A ruler showing inches, points, and picas.

5. Process to put together all pieces of composition into a form that meets quality desired and requirements of the client.

6. A sheet to which cutouts have been waxed.

8. The part of the letter face that overhangs the letter body.

9. The paper placed under the base sheet which helps in drawing the guidelines on the base sheet.

12. A part of a whole number.

13. A glass-top table with a light under the glass.

14. Any natural number that is not broken into parts.

15. A paper on which the cutouts are placed.

17. Arranging the characters on a page in a pleasing way.

20. Relating the style of type to the message.

ACTIVITY 2: TOOLS, SUPPLIES, PAPER, AND EQUIPMENT

Project 1

INSTRUCTIONS: List tools that may be used in layout and design activities.

1.
2.
3.
4.
5.
6.
7.

Project 2

INSTRUCTIONS: List supplies to be used in layout.

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.

Project 3

INSTRUCTIONS: List equipment to be used in layout. (This will vary with the equipment available.)

1.
2.
3.
4.
5.

ACTIVITY 3: MEASUREMENTS

Project 1

INSTRUCTIONS: **Using the tools and equipment suggested, follow the procedures below for drawing lines.**

Tools and equipment

1. T square
2. Triangle
3. Masking tape
4. Line gauge
5. Four sheets of paper
6. Sharp pencils

Procedures

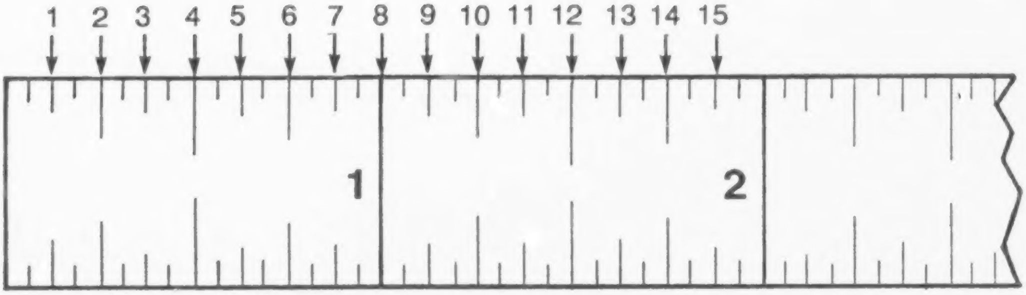
1. Assemble the tools and supplies at the light table.
2. The T square should be placed on the light table with the top overhanging the left edge.
3. Line up the paper to get it straight. Hold the T square in place as the paper is being straightened.
4. Tape all four corners of the paper.
5. Practice making parallel lines. With a sharpened pencil held at a slight angle away from the T square, draw the lines.
6. After you can make correct lines in this direction, practice drawing vertical (up and down) lines.
7. Place the triangle next to the T square, being sure to hold the triangle and T square in place.
8. Practice vertical lines.
9. When you can draw lines this way, tape down a clean sheet of paper.
10. Draw a line across the sheet near the bottom edge.
11. Using the line gauge, make 6 marks, one inch apart, on this line.
12. Draw vertical lines through each mark. To do this, the pencil should first be placed on the mark. Then bring the triangle to the pencil. Stop the lines near the top of paper.
13. Draw 5 lines, one inch apart.
14. Make lines through each mark across the page, using the T square to make these lines straight. The sheet of paper should look like the example the instructor has done.

ACTIVITY 3 (Continued)

Project 2

INSTRUCTIONS: **Label the measure for each arrow.**

1. ____________________
2. ____________________
3. ____________________
4. ____________________
5. ____________________
6. ____________________
7. ____________________
8. ____________________
9. ____________________
10. ____________________
11. ____________________
12. ____________________
13. ____________________
14. ____________________
15. ____________________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11
12
13
14
15
1
2

ACTIVITY 3 (Continued)

Project 3

INSTRUCTIONS: Using a ruler, draw the following line lengths.

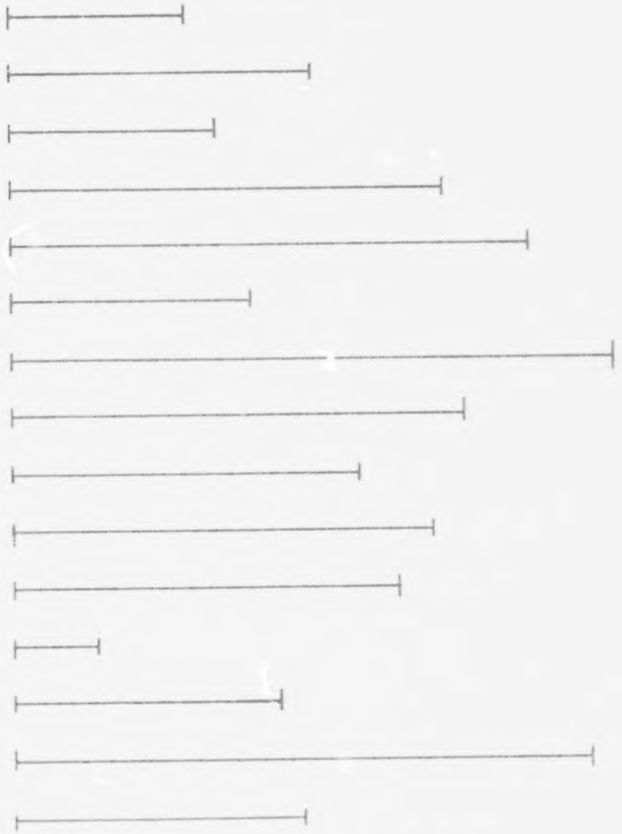
1. 1/2 inch
2. 1/4 inch
3. 1 inch
4. 2 1/4 inches
5. 2 1/2 inches
6. 3 inches
7. 3 1/8 inches
8. 1 1/2 inches
9. 1 3/8 inches
10. 1/8 inch
11. 3/8 inch
12. 5/8 inch
13. 1 1/16 inches
14. 1 3/16 inches
15. 2 5/16 inches

ACTIVITY 3 (Continued)

Project 4

INSTRUCTIONS: **Using a ruler, measure the following lines and tell the measurements.**

1. ________
2. ________
3. ________
4. ________
5. ________
6. ________
7. ________
8. ________
9. ________
10. ________
11. ________
12. ________
13. ________
14. ________
15. ________



ACTIVITY 3 (Continued)

Project 5

INSTRUCTIONS: Using a ruler, measure the following letters and words and tell the measurement.

1. ______ SCALE
2. ______ **TERMINOLOGY**
3. ______ **DIMENSION**
4. ______ LINE
5. ______ **QUARTER**
6. ______ MEASUREMENT
7. ______ POINT
8. ______ SIXTEENTH
9. ______ PICA
10. ______ **EIGHTH**
11. ______ COMPOSITION
12. ______ BODY
13. ______ CHARACTER
14. ______ **ASCENDER**
15. ______ SERIF

660

ACTIVITY 3 (Continued)

Project 6

INSTRUCTIONS: **Type on a sheet of paper your name and the names of all your classmates. Measure your names and your classmates' names, and tell the measurements.**

Project 7

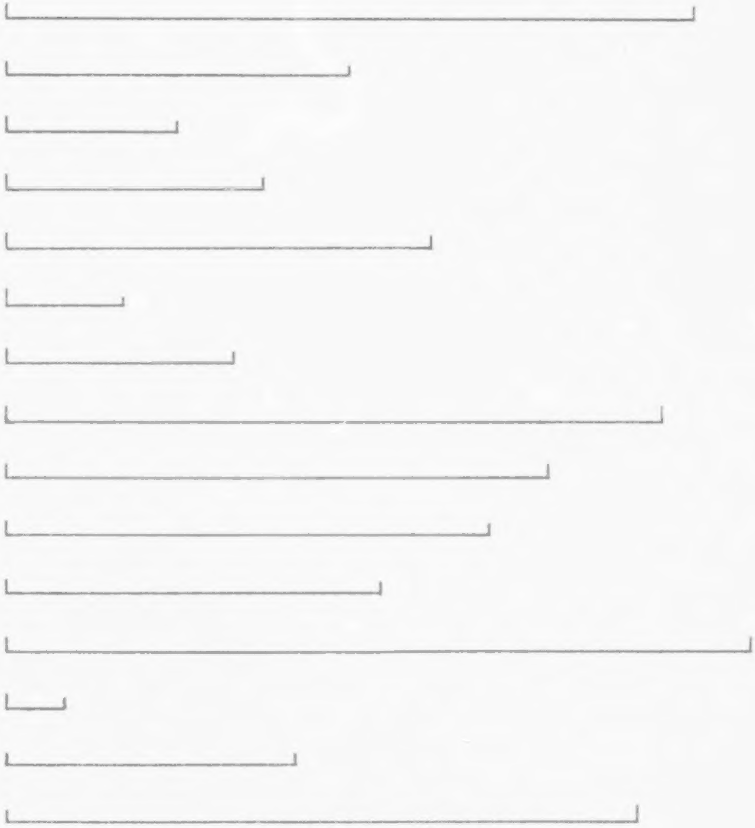
INSTRUCTIONS: **On the following page is a box 7" wide and 10" long.** Using a ruler, **measure and draw boxes within the box as specified:**

1. In the upper left-hand corner, draw a box 3" wide and 3" long.
2. In the upper right-hand corner, draw a box 4" wide and 3" long.
3. Under the above boxes, draw a box 7" wide and 2 1/2" long.
4. Under the above box on the left-hand side, draw a box 4 1/2" wide and 1" long.
5. On the right side, draw a box 2 1/2" wide and 1" long.
6. Below the above boxes on the left side, draw a box 1 1/4" wide and 2 1/4" long.
7. On the right side, draw a box 5 3/4" wide and 2 1/4" long.
8. Below the above box, draw a box 5 3/4" wide and 1 1/4" long.

ACTIVITY 3 (Continued)

Project 8

INSTRUCTIONS: Using the line gauge, measure the following lines.



1. ____________
2. ____________
3. ____________
4. ____________
5. ____________
6. ____________
7. ____________
8. ____________
9. ____________
10. ____________
11. ____________
12. ____________
13. ____________
14. ____________
15. ____________

ACTIVITY 3 (Continued)

Project 9

INSTRUCTIONS: Using the line gauge, measure the line lengths of the following words.

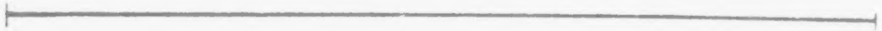
1. __________ SCALE
2. __________ DESCENDER
3. __________ **QUARTER**
4. __________ LINE
5. __________ **GAUGE**
6. __________ MEASUREMENT
7. __________ POINT
8. __________ SIXTEENTH
9. __________ SERIF
10. __________ **ASCENDER**
11. __________ COMPOSITION
12. __________ BODY
13. __________ CHARACTER
14. __________ PICA
15. __________ **EIGHTH**

ACTIVITY 3 (Continued)

Project 10

INSTRUCTIONS: Measure the lines below and give the measurement in inches and points.

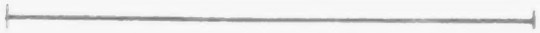
1.



Inches __________

Picas __________

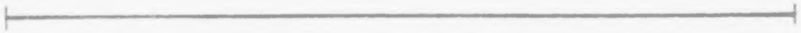
2.



Inches __________

Picas __________

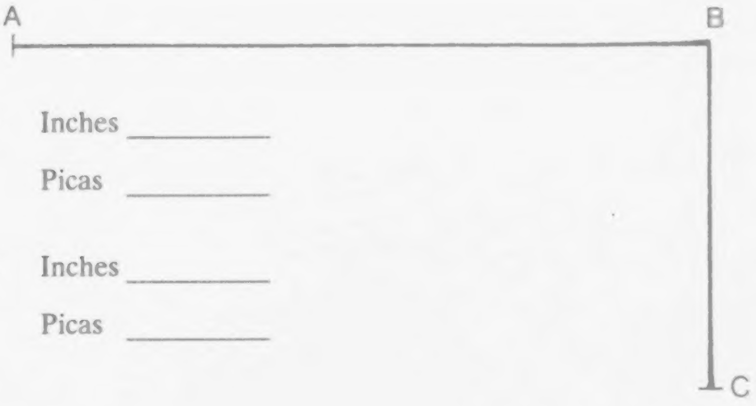
3.



Inches __________

Picas __________

4.



AB Inches __________

Picas __________

BC Inches __________

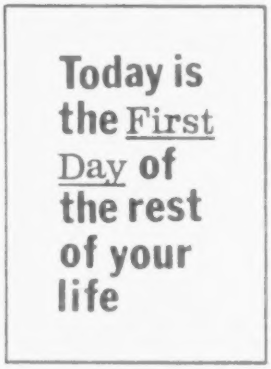
Picas __________

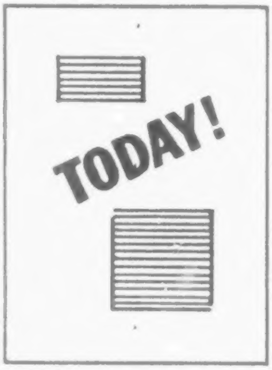
ACTIVITY 4: COPY PREPARATION

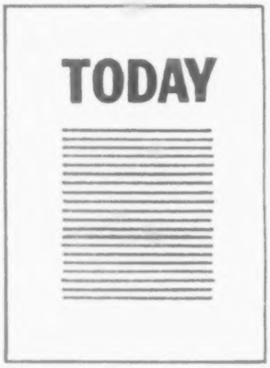
Project 1

INSTRUCTIONS: **By indicating with the proper letter, identify the methods used to achieve emphasis on the illustrations below. Answers may be used more than once, and more than one method may apply to some illustrations (copyright: Southwestern Bell).**

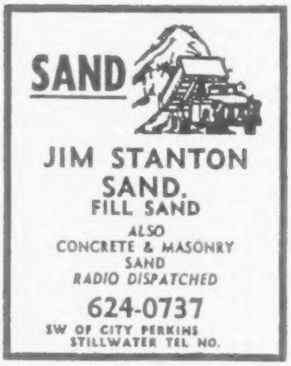
A. Large, heavy elements
B. Contrasting type faces
C. Arrangement
D. Color

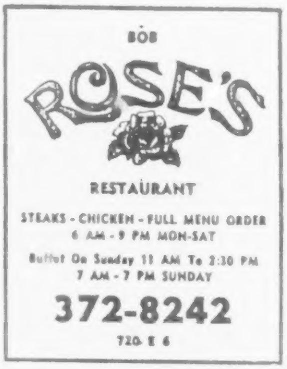

Today is the First Day of the rest of your life

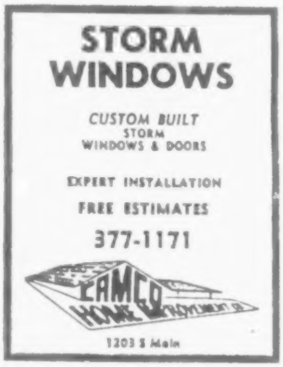




1. ____________ 2. ____________ 3. ____________


SAND
JIM STANTON
SAND.
FILL SAND
ALSO
CONCRETE & MASONRY
SAND
RADIO DISPATCHED
624-0737
SW OF CITY PERKINS
STILLWATER TEL NO.


BOB
ROSE'S
RESTAURANT
STEAKS - CHICKEN - FULL MENU ORDER
6 AM - 9 PM MON-SAT
Buffet On Sunday 11 AM To 2:30 PM
7 AM - 7 PM SUNDAY
372-8242
720 E 6


STORM
WINDOWS
CUSTOM BUILT
STORM
WINDOWS & DOORS
EXPERT INSTALLATION
FREE ESTIMATES
377-1171

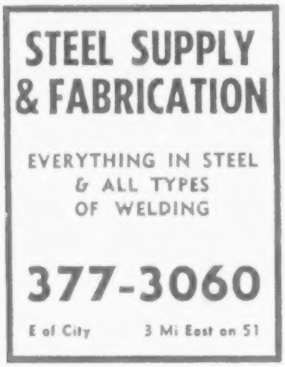
1203 S Main

4. ____________ 5. ____________ 6. ____________

ACTIVITY 4 (Continued)

Project 2

INSTRUCTIONS: **Identify types of balance in the illustrations (copyright: Southwestern Bell) shown below by writing under each whether it is formal balance or informal balance.**

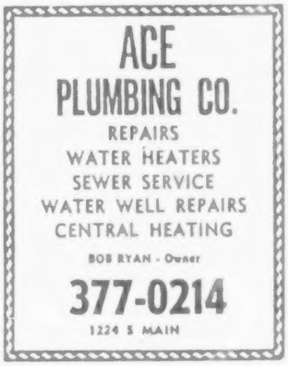


STEEL SUPPLY
& FABRICATION

EVERYTHING IN STEEL
& ALL TYPES
OF WELDING

377-3060

E of City 3 Mi East on 51

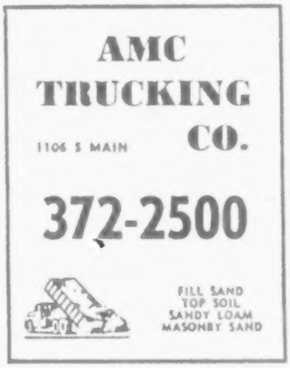


ACE
PLUMBING CO.
REPAIRS
WATER HEATERS
SEWER SERVICE
WATER WELL REPAIRS
CENTRAL HEATING

BOB RYAN - Owner

377-0214

1224 S MAIN



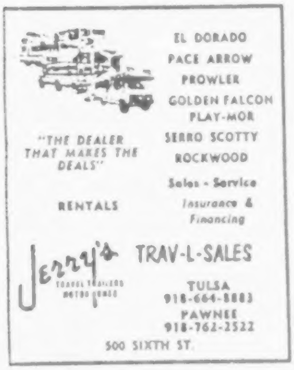
AMC
TRUCKING
CO.

1106 S MAIN

372-2500

FILL SAND
TOP SOIL
SANDY LOAM
MASONRY SAND

1. ____________________ 2. ____________________ 3. ____________________



EL DORADO
PACE ARROW
PROWLER
GOLDEN FALCON
PLAY-MOR
SERRO SCOTTY
ROCKWOOD

"THE DEALER THAT MAKES THE DEALS"

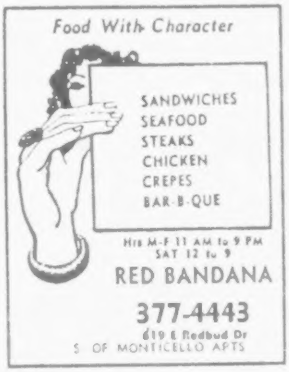
Sales - Service
Insurance & Financing

RENTALS

Jerry's TRAV-L-SALES

TULSA
918-664-8883
PAWNEE
918-762-2522

500 SIXTH ST.



Food With Character

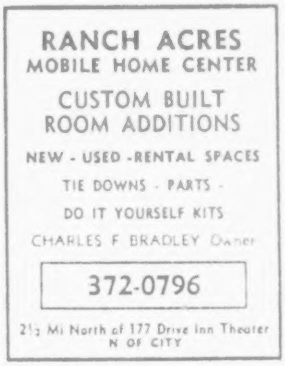
SANDWICHES
SEAFOOD
STEAKS
CHICKEN
CREPES
BAR-B-QUE

Hrs M-F 11 AM to 9 PM
SAT 12 to 9

RED BANDANA

377-4443

619 E Redbud Dr
S OF MONTICELLO APTS



RANCH ACRES
MOBILE HOME CENTER

CUSTOM BUILT
ROOM ADDITIONS

NEW - USED - RENTAL SPACES

TIE DOWNS - PARTS -

DO IT YOURSELF KITS

CHARLES F BRADLEY Owner

372-0796

2½ Mi North of 177 Drive Inn Theater
N OF CITY

4. ____________________ 5. ____________________ 6. ____________________

ACTIVITY 4 (Continued)

Project 3

INSTRUCTIONS: **From magazines provided by your teacher, collect ads that use design ideas you studied in this unit. Cut the ads out, paste on a sheet of paper so they may be displayed in class. Try to find as many varieties as possible.**

ACTIVITY 5: LAYOUT PROCEDURES

Project 1

INSTRUCTIONS: **List the four purposes of a layout.**

1.

2.

3.

4.

Project 2

INSTRUCTIONS: **List the three stages of a layout, and bring through each of these stages a layout concept provided by your teacher.**

1.

2.

3.

ACTIVITY 6: TYPE AND LETTER STYLES

INSTRUCTIONS: **From a magazine or newspaper, locate examples of six different type styles below. Paste these on the sheet, and label them with the appropriate name.**

1. Roman
2. Gothic
3. Square serif
4. Text
5. Script
6. Novelty

ACTIVITY 7: PAPER AND TYPE STYLES

Project 1

INSTRUCTIONS: **Do a "tear test," a "fold test," and a "bend test." Make notes concerning the differences you observe.**

1. Tear test
   - a. Tear a sheet of paper that is horizontal to your desk.
   - b. Tear a sheet of paper that is vertical to your desk.
2. Fold test
   - a. Fold a sheet of paper horizontally.
   - b. Fold a sheet of paper vertically.
3. Bend test
   - a. Hold a sheet of paper horizontally.
   - b. Hold a sheet of paper vertically.

ACTIVITY 7 (Continued)

Project 2

INSTRUCTIONS: Place the correct letter in the appropriate blanks.

A. Bond paper
B. Bristol paper
C. Duplicating bonds
D. Mimeo-bond paper
E. Cover paper
F. Offset paper
G. Thin papers
H. Print papers
I. Tag board
J. Book paper

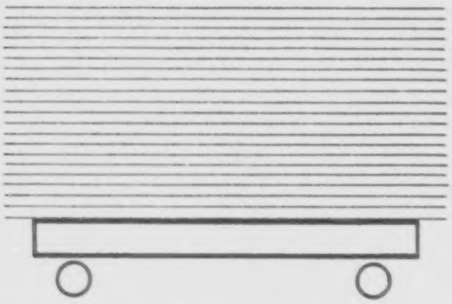
If you were duplicating the following, what kind of paper would you need?

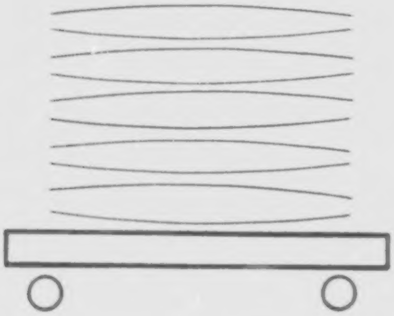
_______ 1. Book cover
_______ 2. Newspaper
_______ 3. Letterhead
_______ 4. Index cards
_______ 5. Menu cover
_______ 6. Identifcation tags
_______ 7. Bridal announcement
_______ 8. Memo form
_______ 9. A fluid duplicating master
_______ 10. A stencil
_______ 11. Textbook
_______ 12. A carbon copy of a letter
_______ 13. Shower announcement
_______ 14. An offset master
_______ 15. Business cards

ACTIVITY 7 (Continued)

Project 3

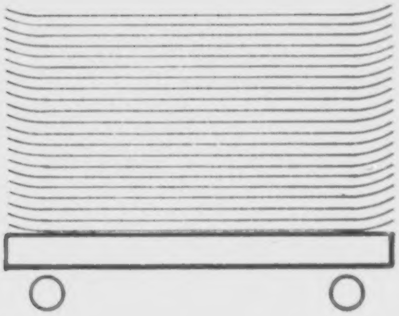
INSTRUCTIONS: **Label the type of effects that moisture has on paper, using the spaces provided below.**

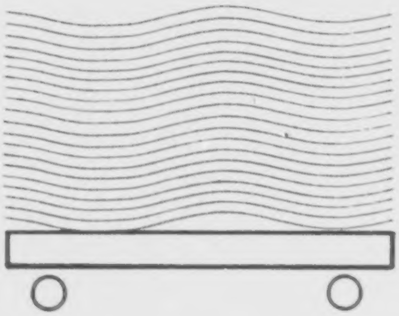




1. ______________________

2. ______________________





3. ______________________

4. ______________________

ACTIVITY 8: LAYOUT PREPARATION

Project 1

INSTRUCTIONS: Select the subject of an advertisement, and using the following tools and equipment, follow the procedures below.

Tools and equipment

1. Line gauge
2. Camera-ready art
3. Tracing paper
4. Graph paper
5. Transparent tape
6. Pencil
7. Eraser
8. Preset type from the photocomposing machine
9. Composing machine
10. Clear tape, masking tape
11. Masking knife

Procedures

1. Select subject of advertisement.
2. Draw a thumbnail sketch.
3. Select size and style of type.
4. Using the thumbnail sketch, prepare the rough layout.
5. Draw the layout to actual size.
6. Place the print and art work (this is a rough drawing of actual size) in the most attractive way to be eye-catching.
7. The final layout is now ready to be made.
8. Assemble all the above materials. Go to the light table.
9. Tape the graph to the table.
10. Tape the tracing paper on top of the graph paper.
11. Very carefully line the preset type at the exact location, using the rough layout.
12. Place the camera-ready art in the rough-drawn area.
13. Have the instructor check the work.
14. Very carefully pick up each piece of art, put adhesive on the back, and replace.
15. Use the same procedure with the preset type, making a special note to see that it is straight.
16. Print your name on the back with pencil in Roman letters.
17. Clean up work area.

ACTIVITY 8 (Continued)

Project 2

INSTRUCTIONS: **Using a separate sheet of paper, complete the following assignment on spacing.**

1. In the center of your paper, draw a smaller page that is 28-picas wide and 42-picas deep.
2. Inside the smaller page, place a line 5 picas from the edge of all four sides.
3. Inside the marginal lines, use the words *Power*, *Beauty*, *Speed*, and *Knowledge*. Use Roman lettering for *Power* and *Beauty* and use Gothic lettering for *Speed* and *Knowledge*.
4. Using the golden line of proportion, letter each of these words on a separate page.

SECTION III: OPERATING BUSINESS MACHINES

UNIT I: REPROGRAPHICS

UNIT OBJECTIVE: The student will be able to identify terms, parts, and basic procedures in operating office machines used to cut, drill, staple, fold, and bind printed material.

MODULE B: SUPPLEMENTARY MACHINES

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Recognize the characteristics of a collator and identify the terms and safety precautions related to its operation.
2. Recognize the characteristics of a paper cutter and identify the terms and safety precautions related to its operation.
3. Recognize the characteristics of a paper drill and identify the terms and safety precautions related to its operation.
4. Recognize the characteristics of a saddleback stapler and identify the terms and safety precautions related to its operation.
5. Recognize the characteristics of a paper folder and identify the terms and safety precautions related to its operation.
6. Recognize the characteristics of a padding press and identify the terms and safety precautions related to its operation.
7. Recognize the characteristics of a punch and binder and identify the terms and safety precautions related to its operation.
8. Recognize the characteristics of a jogger and identify the terms and safety precautions related to its operation.
9. Demonstrate the ability to operate the:
    a. Collator
    b. Paper cutter
    c. Paper drill

d. Saddleback stapler

e. Paper folder

f. Padding press

g. Punch and binder

h. Paper jogger

FOCUS: A knowledge of the various supplemental machine operations enhances an individual's capability of completing the reprographic activities to the fullest extent.

TERMINOLOGY

Collator

Brass skids	Protector feet located on the side of the feeder fingers inside the collator bins.
Collate	Method of putting pages of printed material in order.
Fanning	Method of putting air between sheets of paper.
Feeder fingers	Devices that push the paper out of the collator bins.
Paper tray	Container which holds the collated material.
Set	A group or series of collated papers.
Stacking tray	A container that holds sets of paper as they are collated.

Paper cutter

Backstop	Metal bar which is used to position and straighten the paper at the indicator.
Engage	The process of bringing together.
Indicator	Pointer.
Safety lever	Device that prevents the cutter blade from being used.
Scale	Measure or rule.

Paper drill

Backstop	Board across the feed table area that holds paper in place.
Chuck	Large end of the spindle which holds the bit.
Drill bit remover	Steel rod with a flat side at one end.
Drill block	Round circle of wood on paper drill table that is located beneath the drill bit.
Handle	Control lever that operates the drill bit.

Paper drill bit	Round, hollow metal device that puts a hole in paper.
Sharpener	Grinding stone shaped like a pencil.
Spindle	Spinning shaft that holds the drill bit.

Saddleback stapler

C-clamp	Fastener used to hold a tabletop stapler.
Faceplate	Piece of protective metal at the front of the stapler.
Handle	Control lever of stapler.
Pusher rod	Long piece of U-shaped metal which presses the staples to the proper place for use.
Saddle table	Metal plate that can be used flat when stapling stacks of paper or angled when stapling books.
Staple remover	Device used to remove staples.
Staples	Pre-formed, U-shaped pieces of wire which are drawn though layers of paper to hold the paper together.
Tension release	Small knob at the rear of the loading rod which releases the spring action of the stapler.

Paper folder

Deflector	Shield which keeps paper from going into lower plate.
Feed rollers	The device which moves paper on the folder.
Guide rails	The device which moves a paper out of the machine.
Lower fold plate	Metal plate found under paper tray.
Stacking spring	Metal strips that hold paper as it is removed from the folding machine.
Upper fold plate	Metal plate at top of machine.

Padding press

Backboard	The part of the padding press which evens a stack of paper.

Chipboard	Cardboard backing on pads.
Padding cement	Material which folds sheets of paper together at one edge.
Padding press	Device which holds stacks of paper to be made into pads.
Pressure boards	The part of the padding press that squeezes the sheets of paper together.

Punch and binder

Align	To line up, placing two or more materials in position.
Binder device	Used to attach pages of material together (may be metal or plastic).
Binding stop	Control lever that adjusts binding spread.
Coverset	Front and back covers to be punched and placed with printed material.
Extend	To spread out.
Neutral	Not in operating position.
Paper side guide	Device which stops the paper at proper place.
Push-pull pins	Steel levers which control operation of punching dies (metal cutters).

UNIT OVERVIEW

I. Collator

A. Characteristics of collators

1. May also be called gathering machines.
2. The purpose of the machine is to help assemble separate sheets of paper.
3. The collator may contain from 8 to 150 bins. This means that from 8 to 150 sheets of paper may be assembled at one time.
4. The collator contains rollers which force one sheet of paper at a time from the bin.

B. Safety rules for operating the collator

1. Be sure to unfasten feeder fingers in the bins (or tray) that will not be used.
2. Always fan and jog the paper before loading the machine.
3. Check the feeder rollers to see that they are clean.
4. Do not overload machine.

C. Procedure for fanning and jogging paper

1. Put stack of paper on a flat surface.
2. Using both hands, grasp the paper between thumbs and other fingers.
3. Bend the stack of paper with the ends about two inches apart.

   NOTE: Do not use thumb pressure when bending the paper.

4. Keeping firm pressure between the thumb and fingers on the edges of the stack, reduce the bend until the stack of paper straightens out.
5. Release finger pressure on edges of the paper, and guide the paper into a neatly jogged stack.
6. Repeat the above procedures two or three times for each stack of paper.

D. Loading and operating procedures

NOTE: The following procedures are general. Follow specific instructions contained in the operator's manual for the particular machine in use.

1. Carry paper to table beside collator.
2. Plug in the machine.
3. Turn the switch on ON until feeder fingers are in the forward position; then turn the switch on OFF.
4. Lift feeder fingers upward until magnet catches fingers and holds them in place.
5. Fan and jog each stack of paper pages.
6. Place the stack of page 1 in bin (tray) #1, and continue with pages 2, 3, etc., until all the bins (trays) are filled.

   NOTE: Do not overload a tray.

7. Adjust paper in each bin.
8. Turn the ON switch until paper is fed out; immediately turn switch to OFF position.
9. Check to see if all pages are feeding properly.
10. Grasp the pages with a "scissor-like" motion, and place the sets of pages crisscross in the stacking tray.
11. Continue gathering sheets until one of the trays is empty.
12. Turn machine switch to OFF.
13. Remove extra sheets from tray.
14. Clean up area.

II. Paper cutter

A. Purposes of a paper cutter

1. To provide accurate cutting of paper.
2. To accurately cut small pages from large sheets of paper.

B. Safety rules for operating the paper cutter

1. Only one person at a time should use a cutter.
2. Before starting, make sure the cutter bed area is clear.
3. Make sure the cutter blade is sharp.
4. Lift cutter handle after each cut to engage safety latch.
5. Keep one hand on the cutter handle and the other hand on the paper clamp while making a cut.

C. Reading the cutting scale

1. The scale on the paper cutter is usually shown in inches.
2. The scale shows the distance from the backstop to the line of cut.
3. If the alignment in **B** is correct, the cut paper will be the same size as the measurement shown on the scale.

D. Operating procedures

NOTE: The following procedures are general. Follow specific instructions contained in the operator's manual for the machine to be used.

1. Check safety lever to be sure it is attached.
2. Set indicator on scale for required number.
3. Jog stack of paper.
4. Place paper on paper cutter with edge to be cut nearest the blade. Place paper edge not to be cut against backstop so that the paper rests evenly.
5. Engage paper clamp to hold paper securely.
6. Release safety catch.
7. Pull handle down to cut paper.
8. Bring handle up far enough to fasten safety catch.
9. Release paper clamp.
10. Remove paper from paper cutter.
11. Clean up area.

III. Paper drill

A. Purposes of a paper drill

1. The paper drill is used to put holes in paper.
2. The holes made by the drill make it easy to place paper materials neatly in folders or loose-leaf binders.

B. Safety rules for operating a paper drill

1. Keep hands away from tip of bit.
2. Keep hair tied back, away from face and machinery.
3. Know the machine before trying to operate it.
4. Keep work area around paper drill clean.
5. Examine drill bit often to see if it is clogged or plugged up.
6. Keep proper speed and pressure when operating machine to reduce possibility of fire.

C. Operating procedures

NOTE: These procedures are general. Follow specific instructions contained in operator's manual for particular model in use.

1. Mark the paper in the proper area to be drilled.
2. Check drill bit to be sure it is not clogged.
3. Set the backstop at the proper depth.
4. Place one of the marked areas to be drilled under the drill bit.
5. Pull the handle down until the drill bit guard is resting on the paper.
6. Turn the machine switch to ON.
7. Hold paper in place with one hand, and with the other hand, guide the bit down through the marked area of the paper.
8. Clean up work area.
9. Make sure paper drill is turned OFF before leaving the area.

IV. Saddleback stapler

A. Safety rules when using the stapler

1. Release tension knob before removing faceplate.
2. Be sure stapler is clamped securely before you operate the machine.
3. Keep hands away from stapling area.
4. Remove defective staples with a staple remover only.

B. Loading and unloading the stapler

NOTE: These procedures are general. Follow specific instructions contained in operator's manual for particular model in use.

1. Release the tension knob slowly.
2. Remove the pusher rod completely.
3. Insert staples and push forward to the front of the stapler.
4. Replace the pusher rod.
5. Fasten the tension knob into the grooved area.

NOTE: These directions may not apply to all staplers. Be sure to read the instructions for your machine.

C. Clearing a staple jam

NOTE: These procedures are general. Follow specific instructions contained in operator's manual for particular model in use.

1. Slowly turn the tension release knob.
2. Remove the faceplate by removing fastener.
3. Clear the staple jam.
4. Replace the faceplate.
5. Put the tension knob back in place.

D. Positioning the saddle table

1. When stapling stacks of paper, the saddle table should be flat.

2. When stapling a booklet or other folded material that is to be stapled on the crease, the saddle table should be angled.

E. Securing a saddleback stapler on tabletop

NOTE: These procedures are general. Follow specific instructions contained in operator's manual for particular model in use.

1. Set stapler on table.
2. Hold stapler firmly with one hand.
3. Fasten stapler to table with other hand using the C-clamp.
4. Test to make sure the stapler is tightly fastened to the table.

F. Stapling booklets

NOTE: These procedures are general. Follow specific instructions contained in operator's manual for particular model in use.

1. Be sure stapler is loaded.
2. Angle saddle table.
3. Place material to be stapled across the saddle table under the stapling mechanism.
4. Hold the paper with one hand, keeping fingers away from direct contact with the staples.
5. Using the free hand, slowly depress stapler handle.
6. Check to see if the staple has been correctly placed; if not, remove the incorrect staple with a staple remover, and then staple again.
7. When all stacks are stapled into booklet form, clean any dropped staples from floor and tabletop.

G. Stapling flat stacks of paper

NOTE: These procedures are general. Follow specific instructions contained in operator's manual for particular model in use.

1. Check to see if stapler is loaded.
2. Be sure the saddle table is flat.

3. Place paper to be stapled on the saddle table under the stapling mechanism.

4. Hold the paper with one hand, keeping fingers away from direct contact with the staples.

5. Using the free hand, slowly depress the stapler handle.

6. Check to see if the staple has fastened the paper correctly; if not, remove the staple with the staple remover, and then staple again.

7. Repeat steps 3 through 5 until job is complete.

8. Clean any dropped staples from floor and tabletop.

V. Paper folder

A. Paper folder operations

1. As the paper is fed into the folder, it passes onto the upper fold plate. When the edge of the paper strikes the fold plate, the paper buckles at the point where the machine is set. A pair of fold rollers rotate toward each other and pull the folded paper through the machine.

2. Some paper folders have a fold chart which gives the fold plate settings for standard folds. With other models, the fold plate settings may be determined by measuring the fold desired.

3. If only one fold is to be made, only the upper fold plate is used. When the deflector level is moved to the ON position, the paper is blocked from entering the lower fold plate. If the deflector level is in the OFF position, the paper enters the lower fold plate for the second fold.

NOTE: On some models, the fold plate must be turned around for the paper to be deflected.

4. The folding system must be adjusted to the thickness of the paper being folded. The adjusting knob is turned until a small gap appears between the feed roller and the separator roller.

5. To check the feeding system, place a folded sheet on the receiving tray tapes so that one edge is evenly touching the folding rollers. The stacking spring is put in the center of the paper so that the first stop is resting on the edge of the top sheet of paper.

6. The two outside guides are put about one inch from the edges of the paper. The other paper guides should be evenly spaced across the sheet.

B. Safety rules for using the paper folder

1. Tie hair back to avoid getting hair into the folder rollers.
2. Make sure the machine is turned OFF before making any adjustments.

C. Operating procedures

1. Set the upper fold plate.
2. Set the lower fold plate.
3. Adjust the deflector for a single fold.
4. Set guide rails for the width of the paper.
5. Position the guide rollers.
6. Adjust for the thickness of the paper.
7. Turn the paper folder ON and check machine, using only one sheet of paper.
8. Position stacking spring so the first edge is resting on folded paper.
9. Position paper guides **one unit** from edges of paper.
10. Jog and fan the paper so each top sheet will feed into folder first.
11. Feed paper into machine.
12. After job is completed, throw away crumpled or wrinkled copies.
13. Place folded copies in a neat stack.
14. Replace machine cover.
15. Clean up work area.

VI. Padding press

A. Purposes of the padding press

1. To combine loose sheets of paper.
2. To hold sheets of paper to be made into a pad.

B. Safety rules when using the padding press

  1. Be careful when handling paper; paper edges can cut.

  2. Be careful if cutting the pads apart with a knife.

  NOTE: Pads can be pulled apart by hand.

C. Parts of the padding press

  1. Clamping device

  2. Padding cement

  3. Padding cement brush

D. Operating Procedures

  1. After jogging the paper, desired number of sheets are placed in the padding press in sets, with a piece of chipboard between each set.

  2. The sets are pushed evenly against the backboard.

  3. Pressure board is clamped firmly so pads will not slip.

  4. Padding cement is applied with a brush by either:

    a. Turning the sheets and pressure board around.

    b. Removing the backboard.

  5. The pads are cemented from the rear.

    a. The cement is applied with a brush.

    b. Usually, two coats of padding cement are needed.

  6. When cement is dry, cut pads apart with a knife. Pads may be pulled apart by hand.

VII. Punch and binder

A. Purposes of punch and binder

  1. To bind loose sheets of paper together.

  2. To make is easy to add and take out pages.

B. Safety rules when using a punch and binder

  1. Be careful when handling plastic binders; the edges are sharp.

  2. Be careful when handling paper, because the edges are sharp.

C. Operating procedures

  1. Adjusting margins

    a. Paper is placed into the machine as far as it will go.

    b. The left margin is set so that the punching pattern is evenly placed from one side of the paper to the other.

    c. The push-pull pins are raised where holes are unnecessary.

  2. Punching one sheet

    a. Pull the machine handle with a quick, forward stroke.

    b. Remove paper, and fold it in half to check if the edges are even. If uneven, align another sheet of paper, adjust margins, and repeat the test until margins are even.

  3. Punching a book

    a. Papers are jogged on side to be punched.

    b. With the handle in the neutral position, put the papers into the machine in lifts of 12-17 sheets. The sheets are placed against the backstop and to the left of the paper guide.

    c. Pull the handle with a quick, forward stroke.

    d. Remove the punched sheets from the machine and place **printed side down** beside machine.

    e. Punch the remaining sheets of paper in the same way.

  NOTE: If several books are to be punched, stack books crisscross to separate.

  4. Binding a book

    a. Choose a binder according to the thickness of the book. The right size for a binder is one that is about one-eighth inch larger than the thickness of the book (including covers).

b. Place the binding behind the holding fingers, with a binding circle between each holding finger and the opening of the binding.

c. Set binding control at the proper spread.

d. Push the handle back to open the binding.

e. Place the front cover face down on the binding fingers, with each opening going into a separate binding finger.

f. Place lifts of punched paper face down for binding, with pages in consecutive order.

g. Place the back cover last.

h. Pull the handle forward to the neutral position to release the binding.

i. Lift the bound book off the binder.

j. Check the book to be sure all pages are print-side up.

5. Punching coversets

a. Coversets are usually larger than the paper sheets. The punching pattern starts one-eighth inch from the top and bottom edge of the cover.

b. First, place a scrap coverset in the machine, then center and push to the backstop.

c. Adjust the left paper guide for the left edge of the paper.

d. Where holes are not needed, raise the push-pull pins.

e. Pull the handle forward quickly.

f. After coverset is punched, check to see if the margins are even. Fold the coverset in half with top and bottom edges touching. If margins are uneven, reset the paper guide, and use another scrap coverset to even the margins.

g. Once the margins are even, punch all coversets on the edge.

6. Emptying the paper chip tray

a. If machine punches with difficulty, paper punchings have probably filled the paper chip tray, causing a jam.

b. To clear the jam, place the machine on its back and slide out the tray, allowing the chips to fall out.

c. When all paper chips are removed, replace the tray in the unit.

d. Place the machine right side up and remove any stray paper chips.

VIII. Paper jogger

A. Description of the paper jogger

1. A machine which puts sheets of paper in an even stack.
2. May consist of a small electric motor fastened to a wooden tag.
3. Has a motor shaft which is unbalanced with a weight.
4. May contain a speed control to handle different weights of paper.

B. Safety rules for using a paper jogger

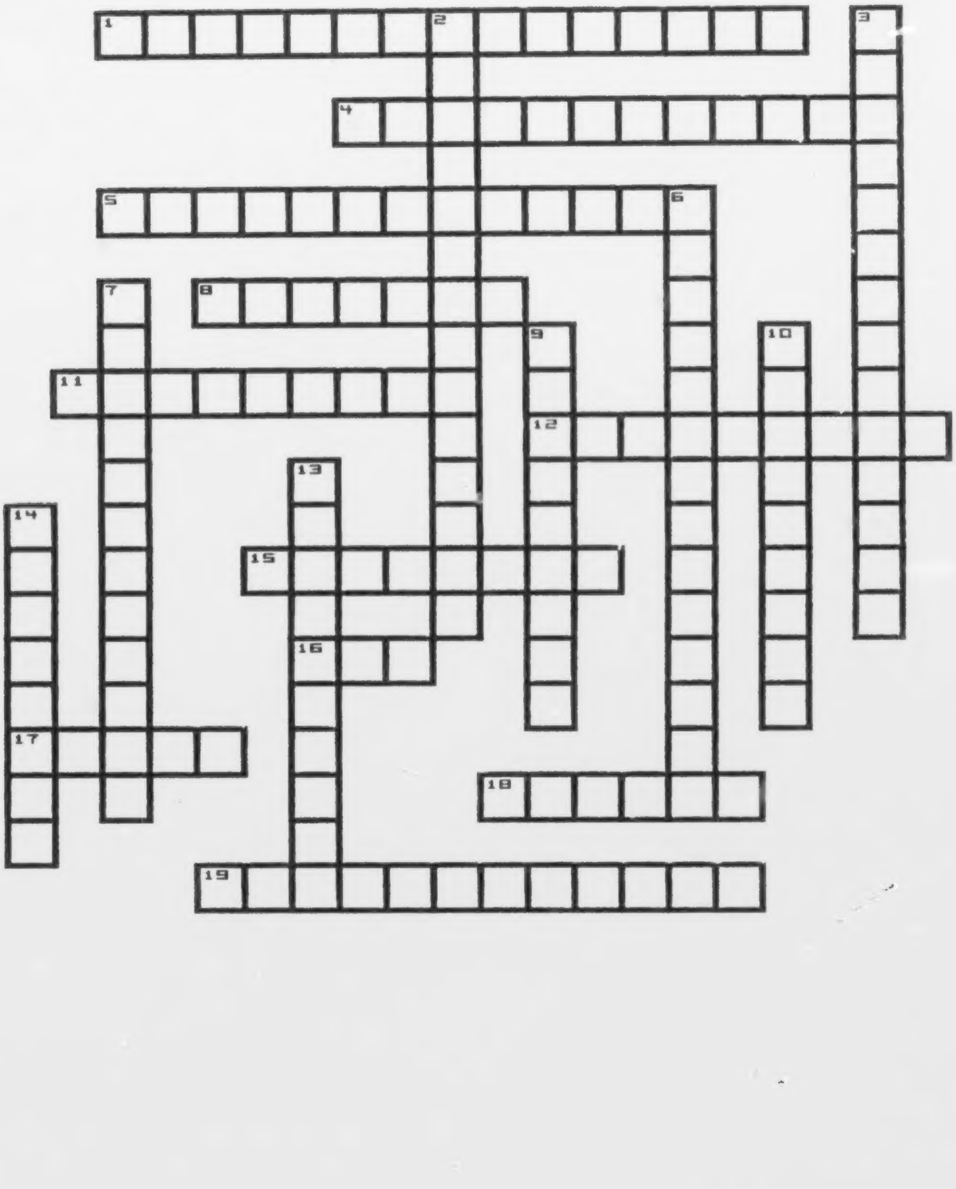
1. Use care when handling paper, because edges can cut.
2. Dry hands before using the jogger.

C. Operating procedures

NOTE: These procedures are general. Follow specific instructions contained in operator's manual for particular model in use.

1. Assemble paper.
2. Put paper into jogger.
3. Hold the paper steady with one hand.
4. With the other hand, turn the jogger ON.
5. Let the machine operate for a few seconds until all edges of the paper are even.
6. Turn machine OFF.
7. Clean up work area.

ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE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ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE CLUES

ACROSS CLUES

1. Steel rod with a flat side at one end.
4. Used to attach pages of material together.
5. Devices that push the paper out of the collator bins.
8. Method of putting air between sheets of paper.
11. Piece of protective metal at the front of the stapler.
12. Pointer.
15. Board across the feed table area that holds paper in place.
16. A group or series of collated papers.
17. Measure or rule.
18. The process of bringing together.
19. Steel levers which control operation of punching dies.

DOWN CLUES

2. Small knob at the rear of the loading rod which releases the spring action of the stapler.
3. The part of the padding press that squeezes the sheets of paper together.
6. Metal strips that hold paper as it is removed from the folding machine.
7. A container that holds sets of paper as they are collated.
9. Cardboard backing on pads.
10. Grinding stone shaped like a pencil.
13. Protector feet located on the side of the feeder fingers inside the collator bins.
14. Front and back covers to be punched and placed with printed material.

ACTIVITY 2: IDENTIFYING CHARACTERISTICS OF SUPPLEMENTARY MACHINES

INSTRUCTIONS: Match the following terms with the definitions by placing the correct letter in the space at the left. Some answers may be used more than once.

A. Collator
B. Paper cutter
C. Paper drill
D. Saddleback stapler
E. Paper folder
F. Padding press
G. Punch and binder
H. Jogger

________ 1. To cut accurately.

________ 2. Used to fold paper to appropriate mailing form.

________ 3. Used to put holes in paper.

________ 4. Used to hold sheets of paper to be made into a pad.

________ 5. Used to attach several pieces of paper together.

________ 6. Purpose is to help assemble separate sheets of paper.

________ 7. Makes it easier to add and take out pages.

________ 8. Allows paper to easily be placed neatly in folders or looseleaf binders.

________ 9. A machine which puts sheets of paper in an even stack.

________ 10. Used to combine loose sheets of paper.

________ 11. Sometimes called a gathering machine.

________ 12. Used to cut large sheets of paper into smaller pages.

________ 13. The paper needs to be fanned and jogged before this machine is used.

SECTION III: OPERATING OFFICE MACHINES

UNIT I: REPROGRAPHICS

UNIT OBJECTIVE Students will demonstrate proper use of reprographic equipment and correct procedures for producing legible copies and quality documents.

MODULE C: COPY MACHINES

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Match terms related to copier reprographics.
2. Describe features of the digital copier process.
3. Identify for each segment of copier classification the features, how many copies per minute, and where used.
4. List ten copier features and describe any three of them in paragraph form, using correct grammar and punctuation.
5. List five advantages of using copiers.
6. Describe in paragraph form, using correct grammar and punctuation, four methods of controlling copier operating procedures.
7. Demonstrate correct copy preparation techniques.
8. Discuss in paragraph form, using correct grammar and punctuation, copyright use and how it affects him/her.

FOCUS: Reprographic and correction techniques in offices have changed over the years. Today, the office worker makes a copy of a document with a copy machine rather than using carbon paper. Reprographics is no longer taking a backseat in office productivity; therefore, it is important for the new office worker to be well trained in reprographic techniques.

TERMINOLOGY

CAD/CAM	Computer-aided design and computer-aided manufacture. Computers are used to create two- and three-dimensional pictures.
Cartridge	Container holding toner.
Centralized	When all copy machines are located in one place, and copies are made only by people who work in this area.
Clear button	A control button that when pushed, clears number of copies ordered from machine.
Component	A part of a system.
Copier	Machine that makes exact reproductions from an original.
Copy	Reproducing a duplicate of a document.
Copy log	Book in which records of copier use are kept.
Copyright	Law which protects the writer's material from being illegally copied.
Cut-and-paste	Method of cutting out material and pasting it into place for production of copy.
Decentralized	When all copy machines are located in separate work areas, and employees in that area can use them to make their own copies.
Digital copier	A type of copier that provides the user with control over size, shape, and contents of the copy.
Dummy	A mock layout showing placement of art and text.
Duplexing	Copying on front and back of the page.
Editing	Changing text to improve the quality of the material.
Electrostatic process	Uses electricity, light, and heat to produce and fuse an image on paper.
Enlarge	A process of making a copy larger than the original.
Graphics	Any material that is keyboarded, printed, drawn, or handwritten.
Halftones	All work which varies in tone.

High-volume copier	Produces 51-90 copies per minute, 50,000 to 100,000 per month.
Horizontal	Copy will be wider than tall.
Layout	Arrangement of material on the page.
Light/dark	Control on copier to adjust tone of image.
Low-volume copier	Produces up to 20 copies per minute, 20,000 per month.
Mid-volume copier	Produces 21 to 50 copies per minute, 60,000 per month.
Modularity	The use of individually distinct functional units.
Monitoring devices	Mechanical and electronic recorders used to keep up with copier use.
Original	Document to be copied.
Plain-paper copier (PPC)	Copier that uses plain paper instead of a special treated paper.
Recirculating	Reentering a document into the copier for the purpose of printing on the back.
Reduce	Procedure to make the copy smaller than the original.
Reprographics system	All procedures and machines involved in reproducing printed material.
Toner	Material, by-product of carbon black, which provides the copy image.
Vertical	Copy will be taller than wide.

UNIT OVERVIEW

I. Reprographics

A. *Reprographics* refers to all procedures and machines involved in reproducing printed material.

1. *Repro* means to reproduce or duplicate.

2. *Graphics* means any material that is keyboarded, printed, drawn, or handwritten.

B. The evolution of today's office copier

1. The office photocopier was once only affordable by the largest corporations.

2. Copiers today are following the evolution of the calculator.

a. Size of copier has decreased significantly.

(1) Copiers are now small enough to be placed on a desktop.

(2) Small, personal desktop systems are available for home use.

b. Costs have been greatly reduced.

3. Features once available only in high-volume machines are now available in all ranges of copiers.

4. In 1959, Xerox introduced the world's first plain-paper copier using the xerographic process.

a. Invented by Chester Carlson in 1958.

b. At that time, copiers were not for sale. Monthly rent was about $100.

c. Copiers were limited to 2,000 copies per month, and use was carefully controlled.

d. Early xerographic equipment characteristics

(1) The copier produced seven copies a minute.

(2) Weight was 648 pounds.

(3) Copier had no other features.

e. The first xerographic copiers were vastly inferior to the copiers of today.

(1) They were not reliable.

(2) They were not very productive.

(3) They were not easy to operate--many secretaries preferred to continue to use carbon paper to make copies.

C. Types of copier processes

1. Electrostatic process uses electricity, light, and heat to produce and fuse an image on paper.

2. Infrared/Thermofax process is a quick method to produce copies; however, the material to be copied must contain carbon for the process to work. Uses a carbon-based original, infrared light, and a heat-sensitive paper to produce an image.

3. Diffusion, transfer, and stabilization process uses negatives that are prepared, developed, and printed.

4. The diazo process is a procedure where both the original document and coated paper are exposed to ultraviolet light; generally used for blueprints.

5. Hand-held personal copiers can be used for a variety of business and home applications.

6. Digital process allows the user to control size, shape, and content.

a. Important modern advancement.

b. The digital copier has many functions--optical scanning for computer input, printing, and facsimile transmission.

c. Digital copiers create documents the same way that laser printers do.

(1) Lasers receive digitized information from host computers.

(2) The copier scans the document and creates digitized information.

d. Advantages of digital machines over conventional (analog) copying machines include:

(1) The copiers last longer--multiple copies cause less wear on the copying mechanism.

(2) They conserve valuable space, because they have the ability to perform more than one function with a single unit.

(3) They simplify paper flow--documents can be created, copied, and transmitted to others at one work station.

(4) They simplify service and supply inventory by using the same high-resolution, plain-paper output for all functions.

e. Facsimile machines and printers can be attached to a digital copier.

D. Other copier technologies

1. Fiber optics

a. Consist of many thin, plastic or glass rods that transmit light.

b. The light is used to transfer an image from the original document to a photosensitive surface and then to the copier paper.

2. Laser beams use a focused stream of red light to transmit an image onto a photosensitive surface and then to plain paper.

3. Microprocessors are now used to control machine functions and simplify copier operations.

a. Allow the copiers to automatically perform many of the functions previously left up to the operator.

b. Allow the copier to be preprogrammed in memory for a designated number of repetitive copying tasks in order to increase productivity.

c. Allow automatic adjusting of paper trays or switching cassettes.

E. Classification of copiers

1. **Low-volume copiers**--Segment I copiers

a. These machines produce up to 20 copies per minute and approximately 20,000 copies per month.

b. Normally, they are used as satellite copiers in decentralized locations, or as the sole copier for small businesses or offices.

c. Personal copiers

    (1) Operate at speeds of 6-10 copies per minute.

    (2) Characterized as being lightweight, portable, and almost service free.

    (3) Several major copier companies are competing for this market.

d. Maintenance is minimal.

e. Some options available are color, enlargement, reduction, duplexing, sorting, stapling, binding, folding, and special trays.

2. **Mid-volume copiers**--Segment II copiers

    a. These machines operate at speeds of 21 to 50 copies per minute and 60,000 copies per month.

    b. Two prime features of this market segment are accessories and modularity availability.

        (1) Users may custom-build their copying systems as their needs dictate.

        (2) Special features may include:

            (a) Semi-automatic, automatic stack, and recirculating document feeders.

            (b) Large-capacity paper supplies--cassettes, decks, or trays.

            (c) Fully automatic duplexing.

                1) Allows copying on both sides of the paper.

                2) Saves paper, postage, and operator time.

            (d) Preset and variable (via zoom lenses) reduction and enlargement copying modes.

            (e) On-line finishers.

            (f) Preprogramming tasks.

3. **High-volume copiers**--Segment III copiers

a. Operate at speeds of 51 to 90 copies per minute and are recommended for volume levels of 50,000 to 100,000 copies per month.

b. Standard features include:

(1) Automatic or recirculating document feeders.

(2) Specialized sorters.

(3) On-line finishers.

(4) Fully automatic duplexing.

(5) Reduction copying.

(6) Continuous paper tray switching capabilities.

(7) Preprogramming tasks.

c. Generally, high-volume copiers are offered in floor-console models and may be found in centralized reproduction departments or in distributed locations within large companies.

4. **Duplicating-volume copiers**--Segment IV copiers

a. Operate at speeds in excess of 92 copies per minute.

b. Used in centralized reproduction centers.

(1) Volume ranges from 50,000 to 200,000 copies per month.

(2) May be found in quick-print shops.

(3) High-speed, electrostatic duplicators.

c. Features include those that reduce labor and increase productivity such as:

(1) Fully automatic duplexing.

(2) Automatic feeding of originals.

(3) Variable reduction copying.

(4) Specialized sorting.

(5) On-line finishing.

(6) Binding.

d. Employ advanced imaging systems, and produce high-quality copies comparable to those produced by offset duplicators.

F. Special xerographic features

1. Color

    a. Plain-paper, full-color copying has been available since 1973.

    b. Technologies that can produce full-color copies

        (1) Printer/plotters

        (2) Printers

        (3) CAD/CAM

    c. Interchangeable color toner cartridges are now available, as well as automatic cartridges that are able to combine toner colors at a touch of a key on the copier's control panel. Thus, time is saved by eliminating exchange of the toner cartridges.

    d. This is still an expensive process and is, therefore, not considered a standard feature.

2. **Reduction and enlargement**--the ability to make a copy smaller or larger than the original with preset ratios.

3. **Zoom lens**--the ability to make smaller or larger copies by zooming up and down.

4. **Automatic document feed**--allows a set of different documents to be fed into the machine one after the other, with little assistance from the operator.

5. **Collating**--a helpful feature when several copies of a multipage document are needed.

6. **Automatic duplexing**--printing on both sides.

7. **Automatic image shift or magnification**--the ability to automatically sense the size of the original and select the appropriate magnification ratio to copy it onto paper selected by the user.

    a. Adds a professional touch to finished documents.

    b. Document is moved away from the margin to allow for hole punching or other binding operations.

    c. The information is sorted while making the shift.

8. Book copy mode
    a. Allows both sides of an open book or magazine to be copied onto only one sheet of paper.
    b. This feature saves paper and operates quickly.
9. Automatic shut-off
10. Automatic staplers
11. Image retention
12. Interrupt
13. Sheet bypass
14. **Folders**--permits the mixing of letter- and ledger-size copies to be folded into a uniform size copy set.
15. **Binding**--up to 100 pages can be bound.
16. Automatic hole-punching operation for inserting copies into ring binders.
17. A combination copier/fax
18. Electronic editing
    a. Basic mask-and-trim operations allow portions of original documents to be copied or deleted.
    b. Advanced features allow the user to move, center, overlay, reduce, and enlarge images, in addition to mask-and-trim operations.
    c. Built-in editing operations
        (1) Users must lay a clear, plastic overlay sheet over the original document.
        (2) The overlay sheet is imprinted with grid lines that identify editing coordinates, which are then entered by using the editing keys on the control panel.
    d. Editing board
        (1) Equipped with a pen-like device called a stylus.
        (2) Stylus is used to outline the areas of an original to be edited.

G. Advantages of using copy machines

  1. Letters and other documents can be reproduced rapidly.
  2. Copies can be reproduced exactly from the original or with corrections to the original.
  3. Copiers are economical for a few copies.
  4. Copiers are easy to operate.
  5. Color copies can be made, although it is an expensive process.
  6. Company letterhead or colored paper can be used.
  7. Transparencies can be prepared on some copiers.
  8. Enlargement and reductions in size may be made.
  9. Several different sizes of paper can be stored on some copiers, and the size of paper needed can be selected.

H. Controlling copying costs

  1. Copier supplies
     a. Paper supplies include both plain paper and roll-fed types.
     b. Toner provides the darkness of the imprint.
  2. Maintenance
     a. Using a service contract
        (1) Service contracts are very costly, especially when they are for on-site repairs, which is usually the case with copiers.
        (2) Service is quicker.
        (3) Usually routine maintenance cleaning and replacement is built into the cost.
        (4) A service contract may save lost time and frustration.
     b. No service contract
        (1) Difficult to find service when you need it.

(2) One on-site service call may cost almost half the cost of the service contract.

I. Controlling operating procedures

1. Centralized copying

2. Monitoring devices-mechanical counters and electronic recorders

3. Copy log

a. Log includes the following information:

(1) Name of person making the copy.

(2) Name of the person/department for whom the copies are being made.

(3) The number of originals.

(4) The number of copies of each original.

(5) The total number of copies made.

(6) The special features used.

b. Used as a copier control procedure.

4. Company user procedures

a. Follow the company's procedures for copier use.

(1) Avoid making personal copies.

(2) Make only the number of copies that you need.

b. Notify the designated person (key operator) if there is a problem with the copier.

J. Copy preparation procedures

1. Originals

a. Make sure that the original is crisp and clear.

(1) Clean printwheel/element for sharp letters.

(2) Beware of smudges.

(3) Leave at least 1/4-inch margin on all sides.

b. Carefully proofread the copy.

c. Make corrections to the copy.

    (1) If correction fluid is used, make sure that it dries before copying.

    (2) Take the extra time to recheck the document.

2. Paste-up materials and layouts

    a. Generally used to prepare and revise material.

    b. Supplies

        (1) Transfer letter/press type

        (2) Plastic templates

        (3) Collection of drawings and small figures

        (4) Layout or paste-up sheets

            (a) Straight across the page

            (b) Two columns

            (c) Combination

            (d) Three-columns

        (5) Other supplies and equipment

            (a) Light table

            (b) Ruler

            (c) T square

            (d) Correcting fluid

            (e) Scissors

            (f) Rubber cement

            (g) Pens

            (h) Tape/Wax

    c. Problems to observe

(1) Wrinkles and puckers in pasted copy--using rubber cement will help prevent this.

(2) Loose tape appears as a line on the photocopy.

3. Check equipment to make sure machines are operating properly.

K. Finishing techniques

1. Collating equipment comes in various sizes.

a. Sometimes it is easier to collate small amounts of material by hand.

(1) Place copies of each page in stack on a table.

(2) Lift the top page from each stack until all copies have been assembled.

(3) Use special tacky cream on fingertips so that pages may be picked up easily.

b. Automatic collators are used for jobs with a large number of copies.

(1) They stack pages in separate compartments of the collator.

(2) A page is pushed out of each compartment when the foot control is pressed.

(3) Pages are gathered in sets and crisscrossed for stapling each time the foot control is pressed.

(4) Some collators are operated by an on/off switch or an electric eye.

2. Trimming equipment allows large volumes of paper to be cut to the exact size needed. They must be operated with care to prevent injury.

3. Folding machines are available that will fold documents in a single fold, accordion folds, parallel fold, and French fold.

4. Punching equipment cuts holes in duplicated copies so that they will fit properly in a standard binder.

5. Bindings are used to join pages together. Some methods are:

a. Bookbindings, which are used for thick documents.

b. Stitching, which is used on brochures.

c. Stapling, which is used on informal materials.

6. Present process includes making hard copies using a light/lens system.

L. New copier technology

1. Canon has a laser copier that scans documents, manipulates them, and prints out the resulting documents.

2. Multifunctional devices will arise in the future.

a. Users may delay this because of lack of interest and need.

b. They are concerned about productivity and costs.

II. Copying rights and crimes

A. U.S. Copyright Law, 1978

1. Protection

a. Copyright protects only from copying; does not give an absolute monopoly on the material.

b. Does not preclude others from using the ideas or information.

c. Copyright does not extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery--only to the concrete medium in which it is expressed

2. Copyright permission and "fair use" guidelines

a. Reproduction is allowed in copies or other forms for purposes of criticism, comment, news reporting, teaching (multiple copies for classroom use), scholarship, or research.

b. Considerations when checking for "fair use" are:

(1) The purpose and character of the use, such as commercial or nonprofit educational purposes.

(2) The nature of the copyrighted material; for example, heavily factual or creative expression.

(3) The amount of the portion used in relation to the copyrighted work as a whole.

(4) The effect of the use upon the potential market for, or value of, the copyrighted work.

(5) Good faith, which is mentioned in the copyright act and is the most important consideration.

B. General rules to follow when copying copyrighted material

1. Do not reproduce systematically any copyrighted item, or make multiple copies for wide distribution.

2. Do not copy commercially produced performance materials of any kind without permission.

3. Try to locate the author or distributor of a copyrighted item prior to copying it; keep copies of all correspondence to substantiate a search.

4. Do not copy works and publications that are intended to be consumable; for example, workbooks, tests, answer sheets, etc.

5. Do not copy anything if it appears that this copying will reduce the market value to the author or owner.

6. Do not copy an item to avoid its purchase.

7. Make sure that all copies of a copyrighted item include a notice of the copyright described below:

   a. Generally located at the bottom of a single printed sheet or on the title page of a bound volume.

   b. The symbol (©), the word "Copyright," or abbreviation "Copr."

   c. The year of publication.

   d. Name of the copyright owner.

8. Do not reproduce any copyrighted item if there is a direct or indirect commercial advantage to be gained from the copies.

9. Do not request multiple copies of published articles from your corporate library or reproduction center.

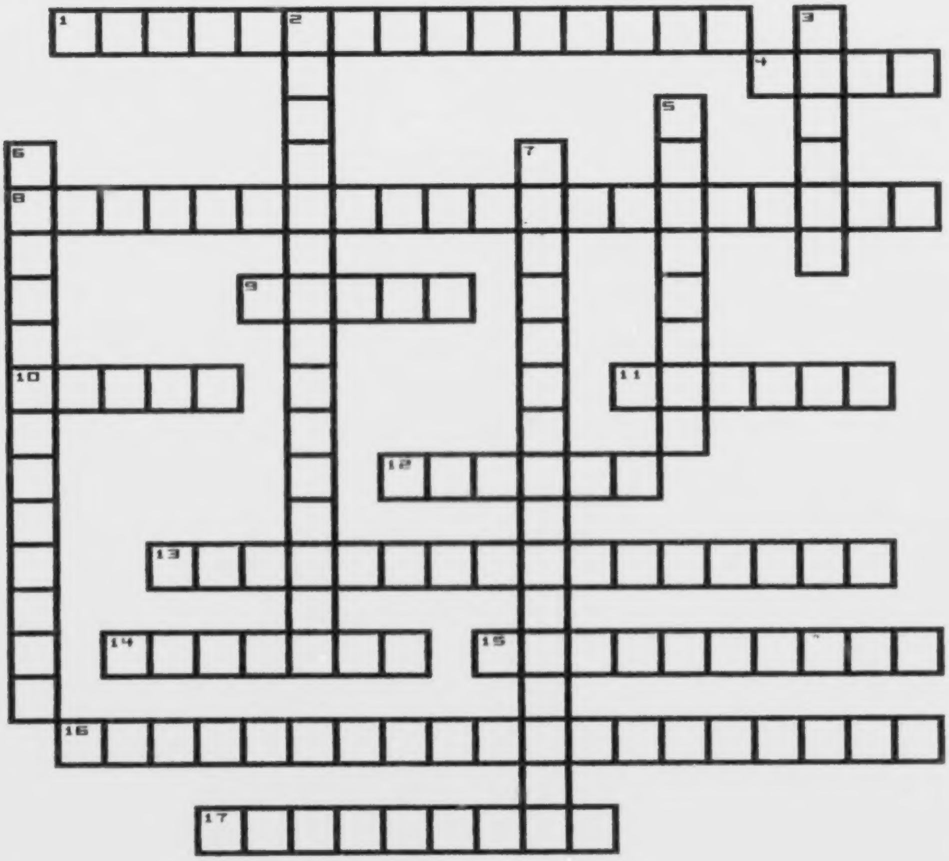
10. If a "Yes" can be answered to any of these question, the copies should not be made:

    a. Will the coping provide direct or indirect commercial advantage to self or organization?

    b. Will it reduce the market value of the item to the owner?

    c. Will the copying be systematic rather than spontaneous?

ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE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ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE CLUES

ACROSS CLUES

1. Produces 21 to 50 copies per minute, 60,000 per month.
4. Reproducing a duplicate of a document.
8. Uses electricity, light, and heat to produce and fuse an image on paper.
9. A mock layout showing placement of art and text.
10. Material, by-product of carbon black, which provides the copy image.
11. Arrangement of material on the page.
12. Procedure to make the copy smaller than the original.
13. Copier that uses plain paper instead of a special treated paper.
14. A process of making a copy larger than the original.
15. The use of individually distinct functional units.
16. All procedures and machines involved in reproducing printing material.
17. Control on copier to adjust tone of image.

DOWN CLUES

2. Produces up to 20 copies per minute, 20,000 per month.
3. Machine that makes exact reproductions from an original.
5. Copy will be taller than wide.
6. When all copy machines are located in separate work areas and employees in that area can use them to make their own copies.
7. Produces 51-90 copies per minute, 50,000 to 100,000 per month.

ACTIVITY 2: FEATURES OF THE DIGITAL COPIER

INSTRUCTIONS: **List five features of the digital copier process.**

1.

2.

3.

4.

5.

ACTIVITY 3: MARKETING SEGMENTS OF COPIER CLASSIFICATIONS

INSTRUCTIONS: **Identify for each segment (A) how many copies per minute and per month (B) where used (omit Segment II) and (C) list characteristics.**

1. Low-volume, Segment I copiers

   A.

   B.

   C.

2. Mid-volume, Segment II

   A.

   C.

3. High-volume, Segment III

   A.

   B.

   C.

4. Duplicating volume, Segment IV

   A.

   B.

   C.

ACTIVITY 4: COPIER FEATURES

Project 1

INSTRUCTIONS: List ten features of copiers.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

ACTIVITY 4 (Continued)

Project 2

INSTRUCTIONS: **Select any three features from Project 1 and describe them.**

1.

2.

3.

ACTIVITY 5: ADVANTAGES OF USING COPIERS

INSTRUCTIONS: **List five advantages of using copiers.**

1.

2.

3.

4.

5.

ACTIVITY 6: CONTROLLING COPIER OPERATING PROCEDURES

INSTRUCTIONS: **Describe four means of controlling copier operating procedures. Use paragraph form, correct grammar, and proper punctuation.**

1.

2.

3.

4.

718

ACTIVITY 7: COPY PREPARATION TECHNIQUES

Project 1

INSTRUCTIONS: Prepare a document provided by your teacher, and make two copies of it. Make sure that you have proofread the document carefully and have made very neat corrections.

Project 2

INSTRUCTIONS: Prepare a cut-and-paste document following instructions from your teacher. Make two copies of the document.

ACTIVITY 8: COPYRIGHT USE

Project 1

INSTRUCTIONS: Describe how the copyright law affects you. Use paragraph form, correct grammar, and proper punctuation.

Project 2

INSTRUCTIONS: Key in a list of the nine general rules to follow when making copies. Make two copies of the document.

720

SECTION III: OPERATING OFFICE MACHINES

UNIT I: REPROGRAPHICS

UNIT OBJECTIVE: Students will demonstrate procedures and skills used in operating a fluid duplicator.

MODULE D: FLUID DUPLICATION PROCESS

STUDENT COMPETENCIES: After completing this unit, the student should be able to:

1. Identify terminology related to the fluid duplication process.
2. Explain the fluid duplication process and identify the parts of the fluid duplicator.
3. Identify the procedures in preparing a spirit master and a thermal master.
4. Prepare and duplicate a spirit master.
5. Prepare and duplicate a thermal master.

FOCUS: Learning the fluid duplication process applies the concepts of layout and design and basic reprographic processes.

TERMINOLOGY

Clamp control	Lever used to open and close the lock which holds the master against the cylinder.
Counter	Dial that shows the number of copies being printed.
Cylinder	The drum-like part which holds the master.
Duplicating fluid	Chemical fluid used to develop images being reproduced.
Feed pressure	Lever that controls the pressure of the rollers to handle different weights of paper.
Feed rollers	Rollers that rest on top of the paper being fed into the machine.
Feed tray	Tray in which the paper is stacked to be fed into the machine.
Fluid tank	Tank that holds the fluid that wets the paper going into the machine.
Impression control	Lever that controls the lightness and darkness of the printed copy.
Impression roller	The roller found under the cylinder.
Master	The white sheet on which you write or type.
Moistening roller	The roller which dampens the paper to be copied.
Receiving tray	The tray which catches the copies from the duplicator.
Thermal master	The thin, white sheet onto which the paste-up master is copied.

UNIT OVERVIEW

I. Fluid duplication process and parts/operation of the fluid duplicator

A. Fluid duplication process

1. Is one of the least expensive reprographic processes.

2. No longer being used in the office.

3. Primarily used only in schools and institutions.

B. Parts of the fluid duplicator

C. Fluid duplicator operation

1. Getting the machine ready

a. Check and add the fluid, if needed.

b. Place and adjust paper on the feed tray.

c. Position the tray which catches the copies.

d. Set the pressure lever.

e. Turn the machine ON.

2. Putting the master on the machine

a. Open the clamp which holds the master on the cylinder.

b. Place the master on the cylinder carbon side up.

3. Running the copies

a. Lower the feed rollers.

b. Run test copies to check the fluid and make any adjustments.

c. Set the counter.

d. Run copies needed.

4. Finishing the job

a. Turn OFF the paper feed.

b. Turn OFF the motor switch.

c. Open the clamp lever, and take out the master.

d. To file the master

  (1) Clip the protection sheet back on.

  (2) Throw the carbon sheet away.

II. Procedures in preparing spirit and thermal masters

A. Spirit master

1. Parts of a spirit master

a. **Master sheet**--the white sheet on which you write or type.

b. **Protection sheet**--the tissue used to keep the master sheet free from smudges.

c. **Carbon sheet**--the sheet coated with a wax-like dye which transfers to the master sheet.

2. Steps in preparing a spirit master

a. Clean the typing element or printhead on the printer.

b. Take out the protection sheet from the master assembly.

c. Insert the spirit master in the typewriter or in the printer with the open side up.

d. Set margins for any keying that is necessary, leaving at least 1/2 inch at the top and the bottom.

e. Key in the document.

f. Print the document if you are using a computer.

3. Correcting the spirit master

a. Using the typewriter

  (1) Corrections by retyping a letter or word in the same place

    (a) Roll the spirit master forward in the typewriter, and open the spirit master.

(b) Remove the error from the back side of the master sheet with a razor blade, knife, or eraser.

(c) Tear the corner of the carbon sheet, and put it behind the error on top of the old carbon sheet.

(d) Type the correct letter(s).

(e) Remove the extra piece of carbon.

(f) Do not worry about the strikeover on the front of the master.

(2) Correcting a letter, word, or line which does not need retyping

(a) Cover the mistake with transparent tape.

(b) Scrape off the mistake with a razor blade or knife.

(c) Cut the mistake out of the master; the entire master sheet is not needed to run copies.

b. Using a computer

(1) Key in document to be duplicated.

(2) Proofread carefully, and use the computer's spelling checker before printing.

B. Thermal master

1. The thermal process

a. Operates on the principle that dark objects will take in more heat than light objects.

b. Allows a paste-up master to be used.

NOTE: **Carbon-based pens, pencils, typewriter ribbons, lettering, cutouts, etc., must be used.**

2. The thermal master is made up of:

a. **Master sheet**--the thin, white sheet onto which the paste-up master is copied.

b. **Protection sheet**--the tissue used to keep the master sheet free from smudges.

c. **Carbon sheet**--the thin sheet coated with a wax-like dye which transfers to the master sheet.

d. **Jacket**--the backing sheet which holds the master together.

3. Steps in preparing a thermal master

a. Remove protection sheet from thermal master.

b. Place original or paste-up master faceup between the carbon sheet and the jacket.

c. Adjust the heat setting for making thermal master (see operations manual).

d. Make test copies for darkness and lightness.

e. Insert master into the thermofax opening.

(1) Once inside, the master is exposed to light.

(2) The light generates heat which contacts with the dark portions on the original, producing a reproducing master.

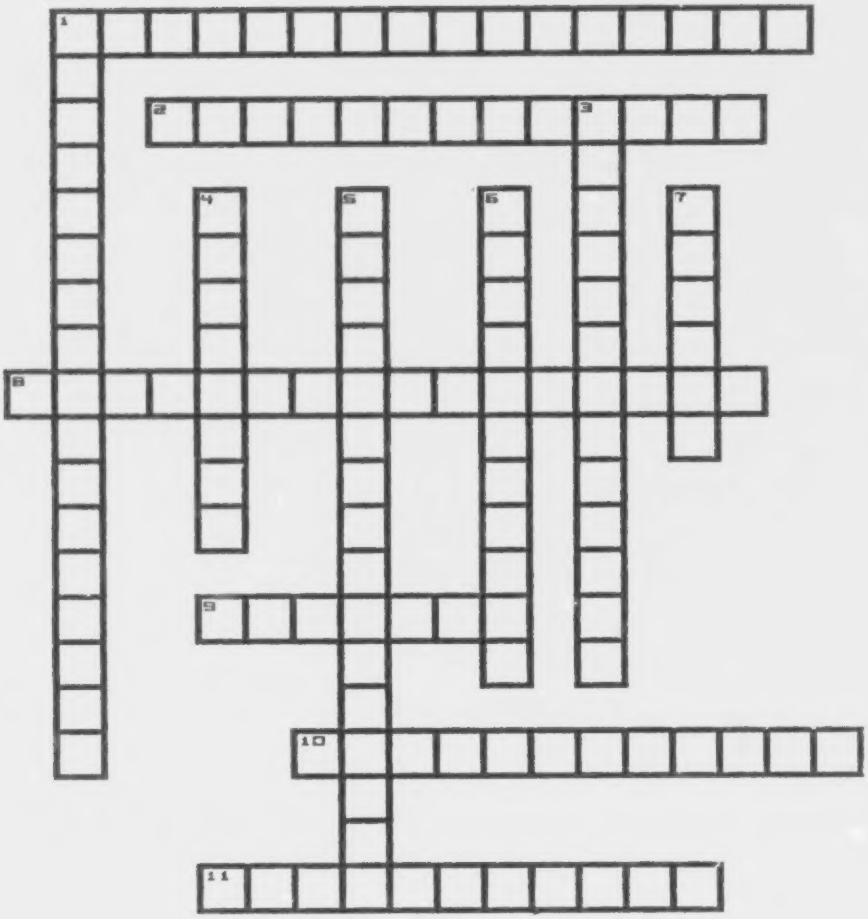
f. Remove the carbon sheet.

g. Do not remove the jacket.

(1) When duplicating, fold the jacket in half, and use it to pad the master on the drum for better copy.

(2) For better copies after the master has become weak, pad the master by placing white paper between the drum and the master.

ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE



ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE CLUES

ACROSS CLUES

1. The roller found under the cylinder.

2. The tray which catches the copies from the duplicator.

8. The roller which dampens the paper to be copied.

9. Dial that shows the number of copies being printed.

10. Lever used to open and close the lock which holds the master against the cylinder.

11. Rollers that rest on top of the paper being fed into the machine.

DOWN CLUES

1. Lever that controls the lightness and darkness of the printed copy.

3. The thin, white sheet onto which the paste-up master is copied.

4. Tray in which the paper is stacked to be fed into the machine.

5. Chemical fluid used to develop images being reproduced.

6. Lever that controls the pressure of the rollers to handle different weights of paper.

7. The white sheet on which you write or type.

ACTIVITY 2: FLUID DUPLICATION PROCESS

Project 1

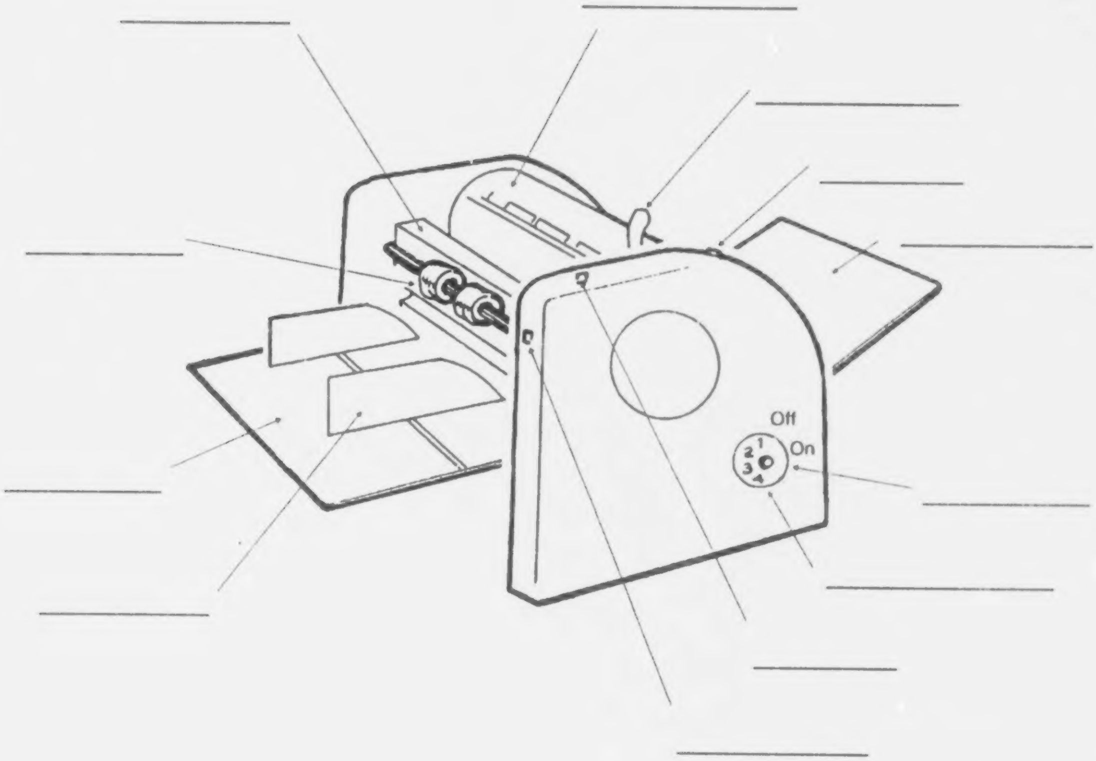
INSTRUCTIONS: Write a brief paragraph describing the fluid duplication process.

Project 2

INSTRUCTIONS: Label the parts of the fluid duplicator on the next page.

ACTIVITY 2 (Continued)

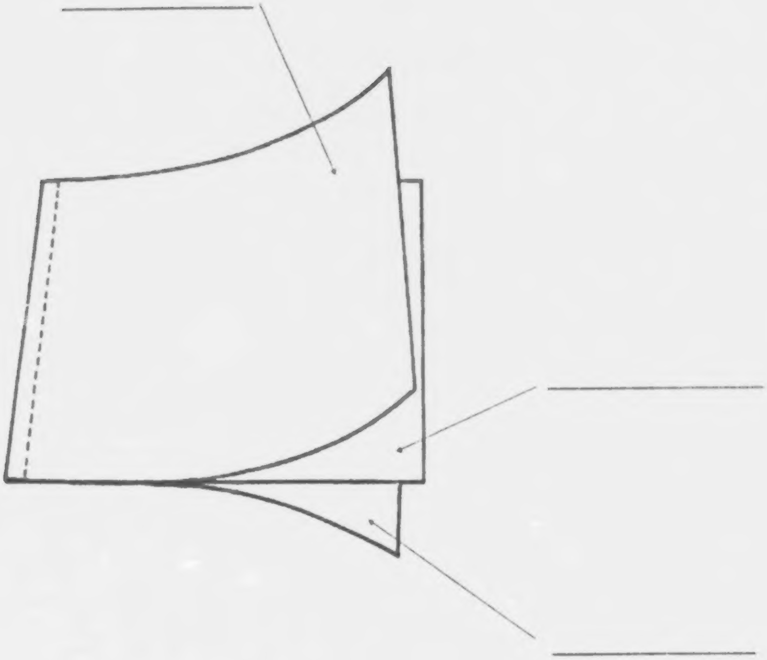
Project 2 (Continued)



ACTIVITY 3: SPIRIT MASTERS AND THERMAL MASTERS

Project 1

INSTRUCTIONS: Label the parts of the spirit master.



ACTIVITY 3 (Continued)

Project 2

INSTRUCTIONS: List the steps in preparing a spirit master.

1.

2.

3.

4.

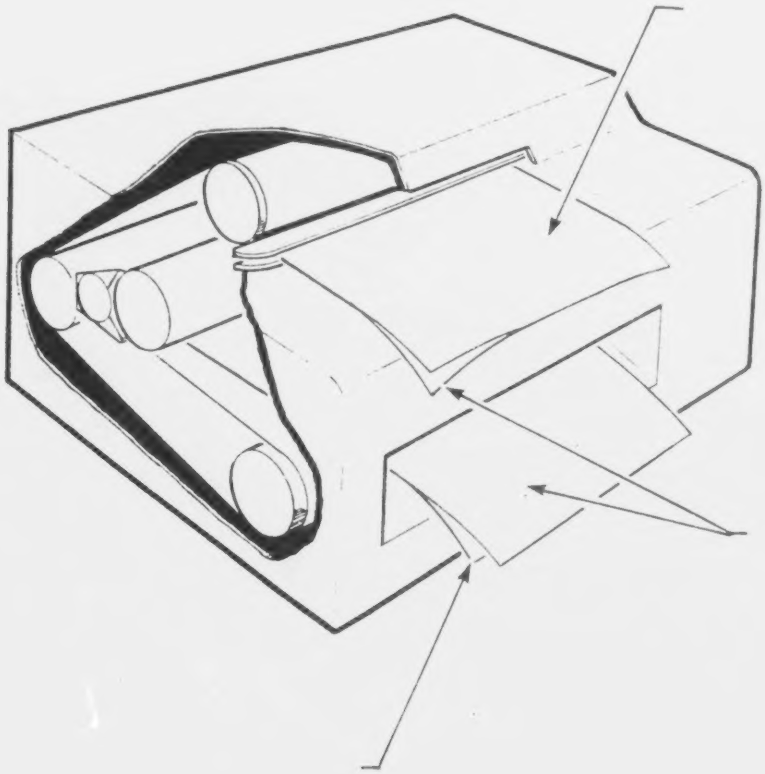
5.

6.

ACTIVITY 3 (Continued)

Project 3

INSTRUCTIONS: Label the parts of the thermal process.



ACTIVITY 3 (Continued)

Project 4

INSTRUCTIONS: List the steps in preparing a thermal master.

1.

2.

3.

4.

5.

6.

7.

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ACTIVITY 4: PREPARING AND DUPLICATING SPIRIT MASTERS

Project 1

INSTRUCTIONS: Divide a spirit master in half. Type the following memo. Leave one-inch top and side margins. Double-space the heading, and triple-space between the subject line an the body.

MEMO

TO: All Sales Personnel

FROM: Sally Jones

DATE: November 1, 19--

RE: Christmas Shoppers

Christmas is once again upon us, and we will be experiencing one of our busiest times. Profits will be up, but so will our losses. Shoplifting is one of our biggest problems this time of year. To keep our losses at a minimum, keep a watchful eye on customers while you are helping a customer.

ACTIVITY 4 (Continued)

Project 2

INSTRUCTIONS: **Key in on a master, making any corrections necessary, the following portion of the law on sexual harassment. Duplicate five copies.**

GUIDELINES ON DISCRIMINATION BECAUSE OF SEX

Section 1604.11(a) Sexual Harassment

Harassment on the basis of sex is a violation of Sec. 703 of Title VII. Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when (1) submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment, (2) submission to or rejection of such conduct by an individual is used as the basis for employment decisions affecting such individual, or (3) such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile, or offensive working environment.

ACTIVITY 5: PREPARING AND DUPLICATING A THERMAL MASTER

Project 1

INSTRUCTIONS: **Using the materials provided by your teacher, prepare a thermal master, and run the number of copies requested by your teacher.**

Project 2

INSTRUCTIONS: **Design an invitation to the faculty to attend the Business Professionals of America open house. Make sure you have used each one of the following items. Use a thermofax to make a thermal master, and duplicate five (5) copies.**

_______ 1. Get a sheet of paper.

_______ 2. Choose letter guides or a variety of fonts.

_______ 3. Use a typewriter or computer.

_______ 4. Paste up materials from cutouts or assemble it using a graphics package on the computer.

_______ 5. Prepare handwritten materials in either hand-lettering or artwork.

SECTION III: OPERATING OFFICE MACHINES

UNIT I: REPROGRAPHICS

UNIT OBJECTIVE: Students will be able to operate an electronic stencil maker and a stencil duplicator.

MODULE E: STENCIL DUPLICATION

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Match terms relating to stencil duplication with their correct definitions.
2. Describe the stencil duplicator operation.
3. Describe the parts of a stencil pack and how to use the stencil guide marks.
4. Place the steps for preparing and correcting a stencil in the proper order.
5. Describe and demonstrate various styli and drawing procedures.
6. List the procedures for operating an electronic stencil maker.
7. Describe causes of and remedies for stencil duplication problems.
8. Demonstrate the ability to:
    a. Prepare a stencil.
    b. Operate an electronic stencil maker.
    c. Operate a stencil duplicator.
    d. Clean and change color.

FOCUS: Many reprographic machines are no longer used in offices today; however, learning stencil duplication is just one level of reprographics that can be applied to higher-level office machines.

TERMINOLOGY

Elite	Type that contains 10 spaces to an inch.
Horizontal	Straight across.
Margins	The blank space around writing or printing on a page.
Pica	Type that contains 10 spaces to an inch.
Ribbon control	A machine part which sets the position of type on the ribbon.
Stencil correction fluid	A quick-drying chemical compound that becomes similar to the stencil coating itself.
Stencil duplicator parts:	
Copy counter	Shows the number of copies being duplicated.
Cylinder	The drum-like part of the machine which holds the stencil in place during duplication.
Feed lever	Drops the feed rollers to the paper as it is fed into the machine.
Feed roller	Draws the paper into the machine.
Feed roller release lever	Releases the feed rollers.
Feed table	Holds the paper to be duplicated.
Guide rail	Holds the paper in place on the feed table.
Hand crank	Part on manual duplicators that feeds the paper to be duplicated into the machine.
Handwheel	Feeds the paper manually.
Motor switch	Starts and stops motor-driven machines.
Receiving tray	Holds the duplicated copies.
Speed control	Controls the speed of the material being duplicated on electric duplicators.
Stencil guide marks	Markings on the stencil sheet that tell where to type or draw on the stencil.
Stencil pack	Includes the stencil, cushion, backing, and film sheet.

Stencil sheet	A wax-coated sheet from which copies are duplicated after being cut using either a typewriter, printer or a stylus.
Cushion sheet	A specially coated sheet placed between the stencil sheet and the backing sheet which softens the typewriter keystrokes to keep the stencil sheet from tearing.
Backing sheet	Cardboard-like sheet that is behind the cushion sheet.
Film sheet	A clear plastic sheet that is located on top of the stencil sheet.
Stencil position	The typewriter ribbon controls used when typing on a stencil.
Stylus	A tool used to handwrite or trace designs on a stencil.
Ballpoint stylus	A tool used for detailed art work.
Wire-loop stylus	A tool used for drawing lines.
Wheel stylus	A tool used for drawing lines.
Rollpoint stylus	A tool used for writing, signing names, and freehand drawing.
Vertical	Straight up and down.
Warning numbers	Numbers which tell how many lines are left on the page.

UNIT OVERVIEW

I. Stencil duplicator operation

- A. Preparing the machine
    1. Remove the cylinder cover.
    2. Place and adjust paper on the feed tray.
    3. Position the tray which catches the copies.
    4. Ink the machine.
- B. Placing the stencil on the machine
    1. Remove the film sheet and cushion sheet from the stencil pack.
    2. Place the stub of the stencil in the notches on the machine (**typed side down**).
    3. Close the head clamp.
    4. Roll the cylinder, and secure the stencil with the bottom clamp.
    5. Fold the backing at the perforation, and carefully tear the backing sheet off.
- C. Running the copies
    1. Turn the machine ON.
    2. Run five or six test copies to distribute ink.
    3. Make adjustments by raising or lowering the copy.
    4. Set the counter.
    5. Run the copies needed.
- D. Completing the job
    1. Turn OFF the paper feed.
    2. Turn OFF the motor switch.
    3. Take the stencil off the cylinder.

a. Prepare the stencil for filing.

(1) Clean stencil by placing between two sheets of newspaper, wet side up, and gently rubbing the entire surface of the stencil.

(2) Store in special stencil folders, legal-size file folders, or stencil boxes.

(3) Staple a copy of duplicated material to the folder or upper part of the stencil for identification.

b. Wrap the stencil in newspaper, and throw it away.

4. Place the cover back on the cylinder.

5. Clean the work area, and store any supplies.

E. Cleaning and changing color

1. Follow instructions provided with your machine.

2. Remove the following parts of the duplicator, placing them in the proper containers: ink gun, ink rods, ink, and silk screen.

3. Clean **all** ink off the cylinder, using color-change strips. Towels will work if change strips are not available.

4. Clean the outside of the duplicator and any areas that might be dirty. Several products are available.

5. After all the old color is removed, insert an ink gun that corresponds with the next color to be used. Make sure that it is correctly placed in the machine.

6. Add ink rollers, and check to see that they are oscillating.

7. Add a silk screen and tube of ink. Lightly ink the screen.

II. Stencil pack and guide marks

A. Parts of the stencil pack

1. The stencil sheet has a special coating through which ink will not pass until the stencil has been cut.

2. The cushion sheet is placed between the stencil and the backing sheet to keep the stencil from tearing when it is typed on.

3. The backing sheet is the heavy cardboard sheet which helps hold the stencil pack together.

4. The film sheet helps to make the copy bolder and keeps the stencil wax from sticking to the typewriter keys or printhead.

B. Stencil guide marks are located on the stencil sheet and tell where to type or draw on the stencil.

1. The top edge paper guide is one-half inch above the broken line. This gives the half-inch margin needed in duplication.

2. Use the pica and elite typing scale found near the top of the stencil when keying in. Do not use the scale on the typewriter.

3. The numbers located on both sides of the stencil are vertical line numbers. Beginning on line 1 allows for a half-inch top margin.

4. A side margin of 5/8 inch is allowed on each side of the stencil.

5. The small boxed area in the middle of the stencil is the area used for postal cards.

6. There are warning numbers for both 11-inch and 14-inch paper.

7. The area of reproduction is the area on the inside of the boxed area.

III. Preparing a stencil and making corrections

A. Preparing a stencil

1. Place the typewriter ribbon control to the "stencil" position, or take the printer ribbon out.

2. Use a film sheet to avoid having to clean printwheels, elements, or typewriter keys.

3. Place a cushion sheet between the stencil sheet and the hard backing sheet. Make sure the glossy side of the cushion sheet is facing toward the stencil.

4. Place the stencil pack in the typewriter or printer as if inserting a regular sheet of paper.

5. Set margins and begin keying information, using stencil guide marks on the stencil sheet.

6. Proofread the copy before removing stencil from the typewriter. If using a computer, proofread on the screen, and use the spelling checker.

B. Making typewriter corrections on the stencil

1. Roll up master, and remove the film sheet.

2. Using a smooth object such as a paper clip, rub over the error very gently to spread the wax coating over the error.

3. Lift the stencil sheet out from the cushion or backing sheet by inserting a pencil, and brush the correction fluid over the error. Hold in this position until the area is dry.

4. Replace the film sheet, roll to typing position, and type over the error.

IV. Using styli and drawing procedures

A. Types of styli

1. **Wire-loop stylus**--used for ruling or drawing. The thinnest part of the stylus should be kept parallel to the line being drawn.

2. **Ballpoint stylus**--used for detailed work. It is used as one would use a pen.

3. **Wheel stylus**--used for drawing solid and broken lines. Comes in several patterns.

4. **Rollpoint stylus**--used for writing, signing names, and freehand drawing. Hold the stylus almost straight up, and apply firm pressure.

B. Drawing on a stencil

1. Place the picture to be traced between the stencil sheet and the backing sheet.

2. Remove the film sheet.

3. Place the stencil pack on the light table.

4. Trace the picture directly on the stencil.

V. The electronic stencil maker

A. Description

1. A machine which will electronically scan an original and create a stencil.

2. Allows a paste-up master to be used.

3. Only carbon-based pens, pencils, typewriter ribbons, letterings, and cutouts may be used.

4. Uses a dark blue or black stencil which cannot be typed or drawn on.

B. Operation

1. Place the original copy on one side of the drum.
2. Place an electronic stencil on the other side of the drum.
3. Place the drum at the start position, and press the **ON** button.
4. Some stencil makers have special settings for various features.
5. Allow 4 to 12 minutes for the machine to make a stencil.
6. Duplicate the stencil.

VI. Problems with stencil duplication

A. Poor copy

1. **Causes**--low ink supply or uneven type image.
2. **Remedies**--increase ink supply, and change impression control setting to medium.

B. Multiple sheets

1. **Causes**--copy sheets sticking together, or feeding parts not working properly.
2. **Remedies**--fan copy paper, or check feeding mechanism.

C. Skip feeding

1. **Cause**--feeding mechanism is either dirty or not working properly.
2. **Remedies**--check, clean, and/or replace feeder parts.

D. Backside of copy smudged

1. **Cause**--ink is on either the stencil, impression roller, or metal parts of the drum.
2. **Remedy**--clean the ink off stencil, impression roller, or metal parts of the drum.

E. Streaking and spots

1. **Cause**--dirty feed rollers or ink leakage from the stencil.
2. **Remedies**--clean feed sheets and rollers, or apply a light coat of stencil correction fluid over hole in stencil.

F. Half-size letters on copy

1. **Cause**--wrinkles on stencil.
2. **Remedy**--run thumb across and down the stencil.

G. Copy too high or too low

1. **Cause**--wrong vertical alignment.
2. **Remedy**--move guide rails on the feed tray to CENTER position.

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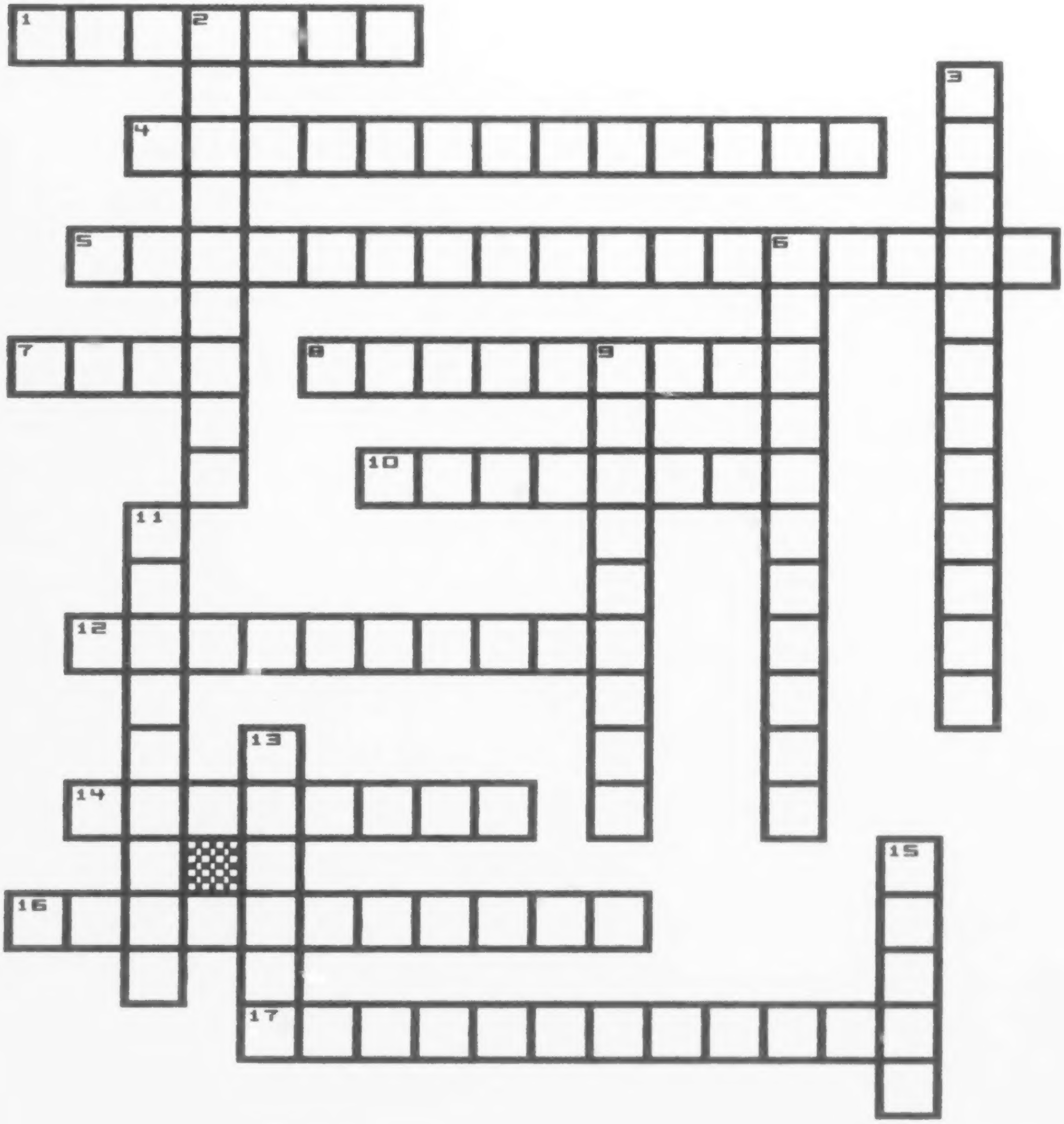
ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE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747

ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE CLUES

ACROSS CLUES

1. The blank space around writing or printing on a page.
4. A machine part which sets the position of type on the ribbon.
5. Markings on the stencil sheet that tell where to type or draw on the stencil.
7. Type that contains 10 spaces to an inch.
8. A clear plastic sheet that is located on top of the stencil sheet.
10. The drum-like part of the machine which holds the stencil in place during duplication.
12. Draws the paper into the machine.
14. Straight up and down.
16. A tool used for drawing lines.
17. A wax-coated sheet from which copies are duplicated after being cut using either a typewriter, printer, or a stylus.

DOWN CLUES

2. Holds the paper in place on the feed table.
3. Cardboard-like sheet that is behind the cushion sheet.
6. Starts and stops motor-driven machines.
9. Part on manual duplicators that feeds the paper to be duplicated into the machine.
11. Drops the feed roller to the paper as it is fed into the machine.
13. A tool used to handwrite or trace designs on a stencil.
15. Type that contains 12 spaces to an inch.

ACTIVITY 2: STENCIL DUPLICATOR OPERATION

INSTRUCTIONS: **Outline and briefly describe the five major parts of operation of the stencil duplicator.**

1.

2.

3.

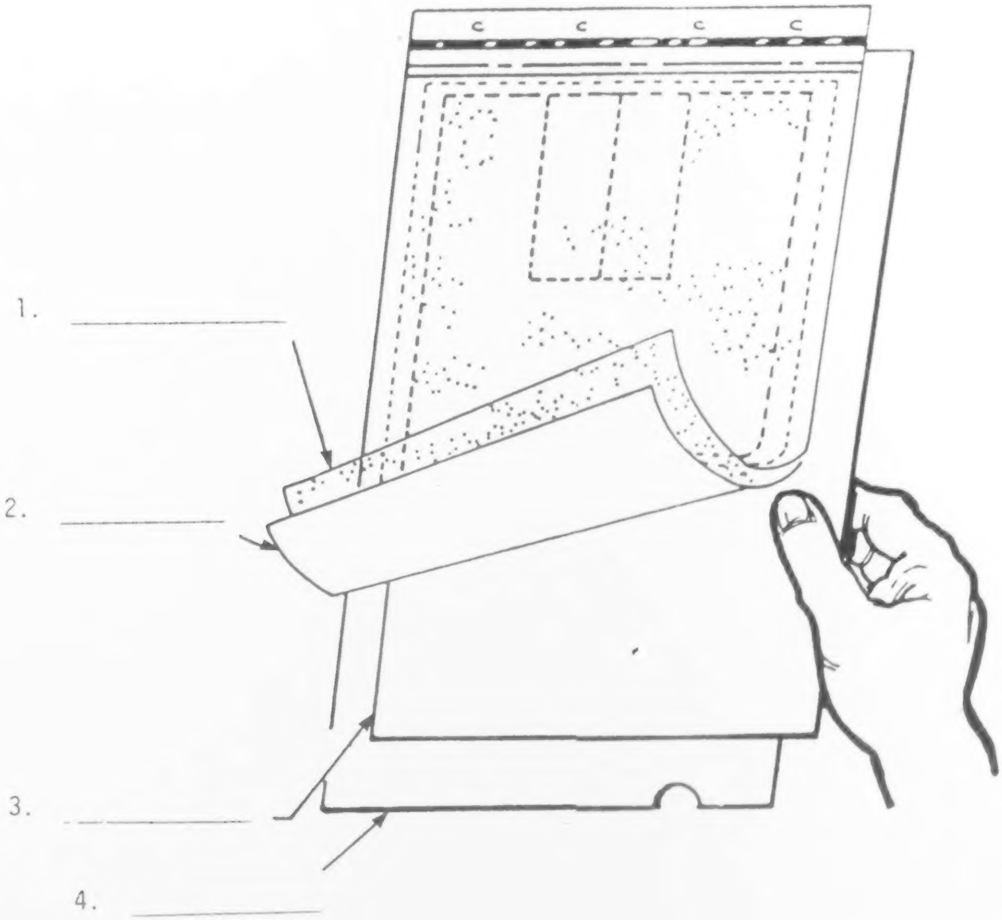
4.

5.

ACTIVITY 3: STENCIL PACK AND STENCIL GUIDE MARKS

Project 1

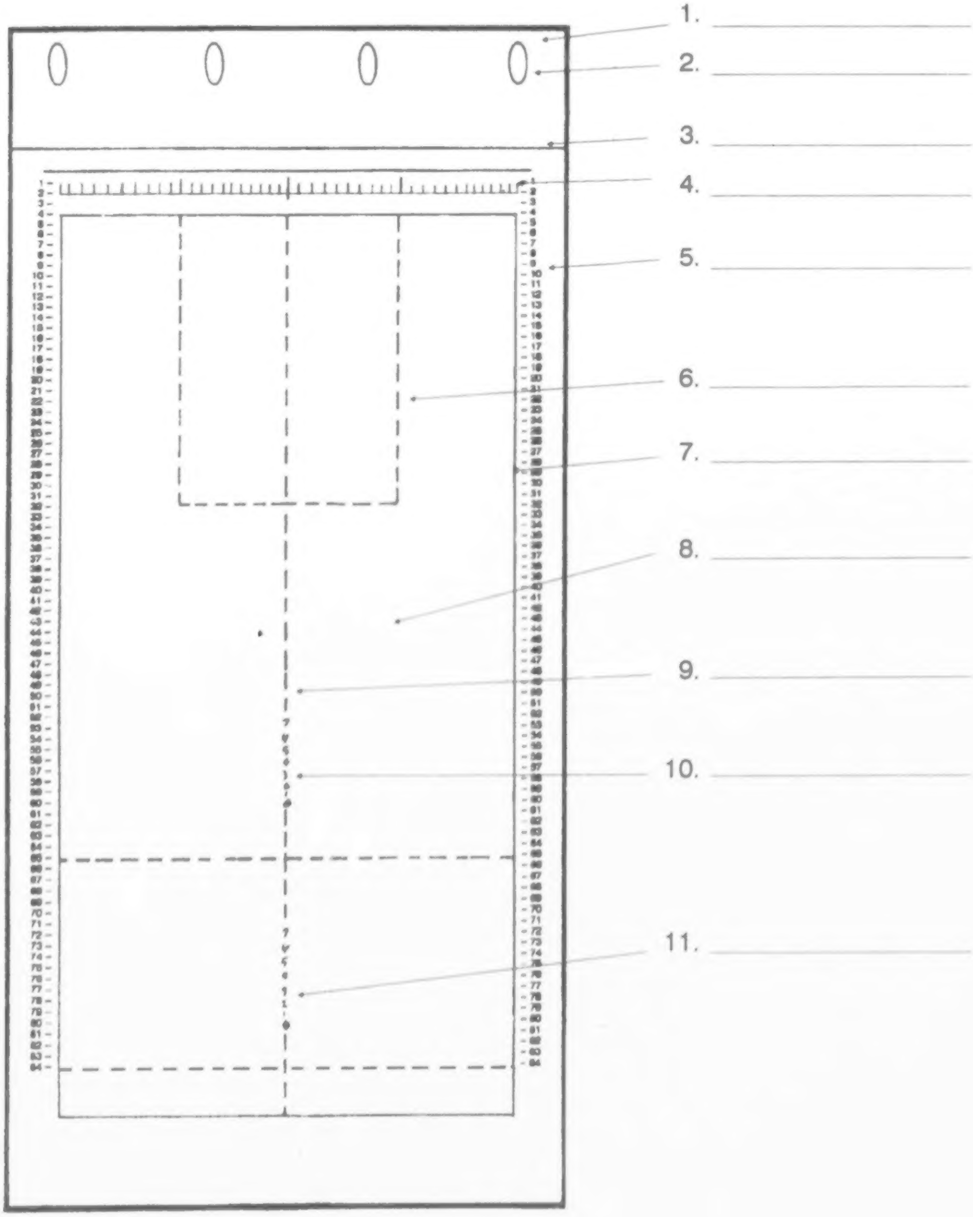
INSTRUCTIONS: Identify parts of the stencil pack shown below.



ACTIVITY 3 (Continued)

Project 2

INSTRUCTIONS: **Identify each of the following guide marks on the stencil.**



ACTIVITY 4: PREPARING AND CORRECTING STENCILS

Project 1

INSTRUCTIONS: List the six steps for preparing a stencil.

1.

2.

3.

4.

5.

6.

ACTIVITY 4 (Continued)

Project 2

INSTRUCTIONS: **List four suggested procedures for making corrections on a stencil.**

1.

2.

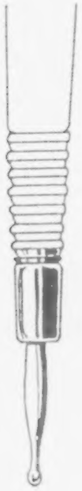
3.

4.

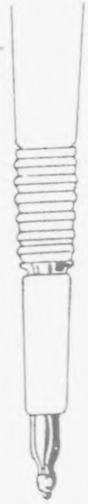
ACTIVITY 5: STYLI AND DRAWING PROCEDURES

Project 1

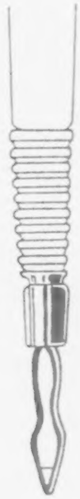
INSTRUCTIONS: **Identify the following styli below, and explain the procedure(s) for which each is best suited.**



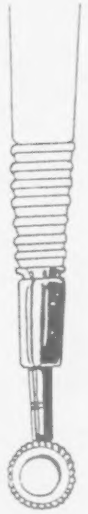
1. ____________



2. ____________



3. ____________



4. ____________

ACTIVITY 5 (Continued)

Project 2

INSTRUCTIONS: **List the four procedures for drawing on a stencil.**

1.

2.

3.

4.

ACTIVITY 6: ELECTRONIC STENCIL MAKER

INSTRUCTIONS: In a paragraph, describe the electronic stencil maker and its operating procedures.

ACTIVITY 7: STENCIL DUPLICATION PROBLEMS

INSTRUCTIONS: Describe the causes and remedies for each of the following stencil duplication problems.

1. Poor copy

Causes

Remedies

2. Multiple sheets

Causes

Remedies

3. Skip feeding

Causes

Remedies

4. Backside of copy smudged

Causes

Remedies

ACTIVITY 7 (Continued)

5. Streaking and spots

   Causes

   Remedies

6. Half-size letters on copy

   Causes

   Remedies

7. Copy too high or too low

   Causes

   Remedies

ACTIVITY 8: PREPARING AND RUNNING A STENCIL

Project 1

INSTRUCTIONS: Type the following problem on the top half of a stencil, leaving 1 1/2-inch top and side margins. Make corrections as needed. After completing Project 2, run 10 copies.

Supplies: Clean type element, stencil, correction fluid, and paper clip.

Dear

Enclosed is your Tarrant's charge card. You will find many Tarrant stores throughout the metroplex and the United States.

At Tarrant's, there is a wide selection of furniture from which to choose.

On your first purchase with your new charge card, we will give you a $10 discount. Simply bring this letter with you when you come.

Sincerely yours,

Joe Doe
Customer Services

xx

Enc.

ACTIVITY 8 (Continued)

Project 2

INSTRUCTIONS: **Center this problem vertically and horizontally on the bottom half of the stencil you used in Project 1. Make corrections as needed. Run 10 copies.**

ANNOUNCEMENT

THERE ARE SEVERAL OPENINGS IN OUR NEW TARRANT STORE

SALES CLERK
OFFICE WORKERS
STOCK CLERKS

IF YOU ARE INTERESTED CONTACT:

June Smith
1919 North Jackson
Campbell, TX 75482
(214)687-3548

Project 3

INSTRUCTIONS: **Using the pictures or diagrams supplied by your teacher. Use one or more styli to copy the pictures. Have a paper clip and stencil correction fluid available to correct any errors. Be sure to sign your name on the stencil. Run 10 copies.**

ACTIVITY 8 (Continued)

Project 4

INSTRUCTIONS: **Select a greeting card or a calendar page you would like to duplicate. For best results, the card/calendar should have a wide area of white bordering the page. Follow the instructions below.**

1. Following the instruction booklet from your scanner manufacturer, set your scanner to filter out the yellow, then red, and then blue from the picture. It is best to make two copies of each color. **DON'T REMOVE THE PICTURE UNTIL ALL STENCILS HAVE BEEN COMPLETED.**

2. Change the color of ink in your duplicator to yellow. Put on the yellow stencil, and run the number of copies designated by your teacher.

3. When the ink has dried, change it to red, and run the red over the yellow. Adjust for alignment as often as necessary.

4. When the ink has dried again, change it to blue, and print the blue over the yellow and the red.

5. If you particularly enjoy this process, you might consider entering the color separation division of the stencil contest.

Project 5

INSTRUCTIONS: **Design a campaign flyer for yourself for use in Business Professionals of America. You will need to decide for what office your are planning to campaign. Use an electronic stencil maker to make a stencil for duplication. Run 10 copies.**

Supplies: **Sheet of paper, letter guide, computer or typewriter, paste-up materials from cutouts, and handwritten materials in either artwork or hand-lettering.**

SECTION III: OPERATING OFFICE MACHINES

UNIT I: REPROGRAPHICS

UNIT OBJECTIVE: Students will demonstrate procedures and skills used in operating the offset press.

MODULE F: OFFSET PROCESS

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Define terms related to the offset process.
2. Identify the offset process and systems.
3. List advantages and disadvantages of using the offset.
4. Identify the types of masters and platemakers.
5. Demonstrate the ability to prepare and duplicate an offset master.
6. Demonstrate the ability to follow offset operating procedures.
7. Identify careers and new technology in the area of offset printing.

FOCUS: Offset printing is a major industry, offering new technology affecting modern offices, schools, and businesses. A working knowledge of printing skills contributes to the success of the trainee.

TERMINOLOGY

Blanket cylinder	Drum on the offset duplicator used to hold a rubber blanket which comes into contact with the inked image on the plate cylinder.
Impression cylinder	Cylinder which carries the paper inside the offset duplicator and applies pressure to the paper against the blanket cylinder to control imaging.
Impression process	A cylinder beneath the master cylinder, called an impression cylinder, presses a clean piece of copy paper against the blanket cylinder. The inked image on the blanket is printed on the paper. The paper, containing the image, exits the duplicator into the paper receiving tray.
Inking process	As the master cylinder rotates an ink roller coated with greasy ink touches the master. The ink from the ink roller coats the image area of the master. The image now appears on the master in the form of ink on a wet, water-based background.
Mastering process	As the master cylinder revolves, the master is brought into contact with a small, water roller moistened with a water-based solution. This solution coats the area of the master that has no images (blank), but will not coat the image areas of the master.
Offset duplicator (press)	Machine which transfers the image from an offset plate to copy paper. Printing unit consists of a plate cylinder, blanket cylinder, and impression cylinder.
Offset plate	Thin sheet of paper, plastic, or metal on which an inked printing image is transferred to the offset blanket when the offset press is operating. The image on a plate (paper, metal, or plastic) is highly receptive to ink.
Offset printing	Offset process based on the principle that oil and water will not mix. The oil-based printing ink and the water-based repellent (fountain solution) will not mix.
Platemaker	Machine which exposes images onto an offset plate to be used for duplicating.
Plate (master) cylinder	Used to hold the offset plate in place and bring the plate into contact with the dampening rollers.
Reverse imaging process	As the master continues to rotate, it touches a large cylinder which has a rubber blanket attached to the surface. As both cylinders rotate, the image from the master is transferred to the blanket, or is "offset" from master to blanket. The image on the blanket is the reverse of the image that is on the master.

UNIT OVERVIEW

I. Offset press process and systems

  A. Offset process

    1. Based on process that oil and water do not mix.

    2. The oil-based printing ink and the water-based repellent will not mix.

  B. Offset Systems

    1. Dampening system

      a. In this system, dampening rollers apply a film of dampening solution to the surface of the offset plate.

      b. The dampening solution sticks only to the nonimage (blank) areas of the plate.

    2. Inking system

      a. After the plate has a coating of dampening solution, the ink rollers apply a coat of ink which adheres only to the image area of the plate.

      b. The process of dampening and inking continues during the operation of the press so the nonimage areas of the plate remain clear, and the ink adheres to the plate image area only.

    3. Main printing system

      a. In this unit, the inked image on the plate is transferred to the surface of the blanket (on the blanket cylinder) when the plate cylinder and the blanket cylinder contact each other.

      b. The image from the blanket is printed on a sheet of paper as it passes between the blanket and impression cylinder.

    4. Feeding system

      a. Most large presses have paper feeders which are air-vacuum operated.

      b. A blast of air separates the top sheets, causing them to float individually before entering the machine.

c. Most small presses have rubber feed rollers that pull the paper into the machine.

d. As the press is operating, the paper feed table maintains the paper stack at the proper feed height by being automatically raised.

e. Sheet separators (sometimes called "cat's whiskers") attached to the paper feed table allow only the top sheet to be fed into the press.

5. Register board and sheet controls system

a. This system is found on large presses only.

b. It uses air-vacuum feeding, which allows paper to be pulled along a register table and straightened before grippers pull it into the press. Duplicate feeds are separated, and the bottom sheet is ejected before it enters the press.

6. Delivery system

a. On most duplicators the printed sheet is ejected from the machine into a delivery (receiving) tray.

b. On larger presses, the sheet is ejected into a receding stacker, where the paper is stacked neatly.

c. Additional features on modern presses allow thousands of copies to be stacked on a receiving module that can be rolled to the next application, such as additional runs, collator, cutter, or folder.

II. Advantages and disadvantages of the offset process

A. Advantages

1. The quality of the copy looks as good as the original.

2. Each copy is of the same high quality.

3. Printing can be done in color.

4. Many copies can be produced in a short period.

B. Disadvantages

1. Equipment is more expensive than that for other forms of duplication.

2. The procedures in operating the machine are more technical.

3. It is more expensive to keep up the machine.

4. Material costs are higher than other forms of duplication.

III. Masters and platemakers

A. Types of masters

1. Direct image

a. There is no sensitized coating on a direct-image plate.

b. An image is added by typing on plate with a special carbon ribbon or by hand drawing or lettering using a grease-based pen or pencil.

c. To save for reuse, these plates are run down on the offset to remove ink and then coated with a gum arabic solution to prevent oxidation, then stored between sheets of clean paper. To reuse, the plate is washed with a clean, wet sponge.

d. **Example**: Pin bar master

2. Presensitized plate

a. There is a coating of light-sensitive material on the plate.

b. The plate must be exposed and chemically processed before using it on the press.

c. Exposure may be done in a plateburner using a chemical process to develop the plate.

d. A platemaker may be used to expose and develop the plate.

3. An electrostatic mastermaker

a. Produces electrostatic masters.

b. **Examples:** Electrostatic masters, electrostatic converter, metal plates, and silver halide masters.

B. Prepare the offset master (direct image)

1. Tools, material, and equipment required

a. Typewriter

b. Carbon ribbon

c. Soft, nongreasy offset eraser

d. Offset master

e. Draft material to be typed

2. Procedures

a. Clean type focus on typewriter if dirty.

b. Check to see if feed rolls and plate are free from smudges and deposits.

c. Insert offset master in typewriter. The side on which nonreproducible guide markings are printed is the side on which the typing is done.

d. Type masters.

e. When correcting an error, erase the image with the eraser very lightly, removing only the carbon deposit on the master.

f. Proofread typed material before removing it from the typewriter.

g. Remove typed material.

h. Turn the typewriter off.

i. Store supplies.

C. Platemakers

1. Usual features include:

a. Vacuum printing frame.

b. Light source.

c. Timer.

d. Registration devices for proper alignment.

e. Specific machines may have additional controls/features.

2. Types of platemakers

a. Plateburner produces metal plate from a "flat," the masking sheet with negatives taped on.

b. Photocopying platemaker uses a two-step process to produce plate from an original.

c. Light exposure process produces metal plate from a flat.

d. Mastermaker produces an electrostatic master directly from an original.

D. Operating the platemaker

1. Tools, equipment, and materials required

a. Offset plate

b. Negative paper

c. Fixer

d. Lacquer

e. Cotton swabs

f. Platemaker

g. Desensitizer

h. Plate gum

2. Procedures

a. Photocopying procedures

(1) Set exposure dial control.

(2) Place negative, yellow side up, in machine.

(3) Place original face down on negative, making sure original is aligned.

(4) Close lid and turn on main switch.

(5) Press impulse switch for exposure.

(6) Remove original, and turn negative face side down.

(7) Position plate, dull side up, on glass and align under separator.

(8) Place negative on top of plate, yellow side down, sliding on top of separator.

(9) Press switch for developer section.

(10) Wait a specified period of time, and peel negative from plate.

(11) Treat plate with fixer.

(12) Rinse excess lacquer from plate with water.

(13) Treat plate with preserving material if plate is not to be used immediately.

(14) Clean up area and store supplies.

b. Light exposure process

(1) Set exposure controls.

(2) Place prepared negative on top of metal offset plate.

(3) Firmly secure negative and plate.

(4) Expose to light approximately three minutes.

(5) Remove the plate and negative from platemaker.

(6) Wipe metal plate with desensitizer solution, using a cotton pad.

(7) Develop plate with lacquer.

(8) Rinse plate thoroughly.

(9) Put thin coat of gum preserver on plate.

E. Processing the offset plate

1. Tools, equipment, and materials required

a. Metal and paper plates

b. Fixer

c. Cotton pads

d. Lacquer

e. Developer

f. Platemaker

g. Etching solution

2. Procedures

   a. Processing the metal plate

      (1) Place plate on glass surface or smooth plastic tabletop.

      (2) Spread fixer smoothly over plate with cotton pad.

      (3) After a few seconds, place lacquer in a nonimage area of the plate.

      (4) Wipe lacquer over copy area with a fresh cotton pad, moving from left to right with light strokes.

      (5) Rinse plate with water immediately.

      (6) If unwanted images are on plate, remove the images with a cotton pad moistened with developer solution.

      (7) Store plate.

   b. Processing the paper plate

      (1) Place plate on a glass surface or plastic tabletop.

      (2) Pour etching solution onto the plate.

      (3) With a clean cotton pad, rub solution over the entire surface of the plate.

      (4) Wipe plate with wet cotton pad before attaching it to the offset press.

      (NOTE: **Be sure plate is still damp when attaching to the offset. If it has had time to dry, the ink will cover all areas.)**

IV. Offset operating procedures

A. Inking the offset duplicator

1. Tools, materials, and equipment required

   a. Fountain concentrate, properly mixed

   b. Ink knife

   c. Ink

   d. Cotton pads

e. Water

f. Offset duplicator

2. Procedures

a. Remove or secure loose jewelry, neckties, scarves, or other similar items.

b. Secure hair so that it does not fall over shoulders.

c. Move night latch to ink position.

d. Position moisture (acquamatic) control to highest setting.

e. Place ink in ink fountain.

f. Rotate ink roller, and adjust ink fountain screws.

g. Rotate handwheel for ink roller to contact fountain roller.

h. Move ink fountain control.

i. Set or raise lockout lever.

j. Turn machine to ON, and allow time for even distribution of ink on rollers.

k. Move ink fountain control to recommended position.

l. Raise or press down moisture lockout lever, depending on machine type.

m. Move moisture control to OFF position, and turn machine off.

n. Fill fountain concentrate bottle, and mix solution to recommended ratio of water and fountain concentrate.

o. Place bottle in moisture unit.

B. Running the offset duplicator

1. Tools, material, and equipment required

a. Ink knife

b. Ink

c. Fountain solution

d. Copy paper

e. Cotton pads

f. Offset master

2. Procedures

   a. Remove or secure loose jewelry, necktie, scarves, or other similar items.

   b. Secure hair so that it does not fall over shoulders.

   c. Lower feed table.

   d. Load copy paper on feed table.

   e. Check or adjust feeding and receiving tray.

   f. Adjust feed roll pressure.

   g. Attach master (moisten first if using a paper master). Use electrostatic converter.

   h. Moisten master.

   i. With machine in neutral control, turn machine to ON position.

   j. Move moisture control to desired setting.

   k. Move control to ink, and allow machine to run a few revolutions.

   l. Move control lever to image position.

   m. Move control lever to feed position.

   n. Feed paper into the machine.

   o. Run test copy, and make any necessary adjustments.

   p. Set counter.

   q. Run desired number of copies.

   r. Move operation control to neutral, and feed additional blank paper to run down image on master.

   s Turn off machine.

   t. Remove master.

   u. Clean blanket and cylinder.

C. Filing and storing offset masters

1. Material and equipment required

   a. Offset master

   b. Offset duplicator

   c. Cotton pad

   d. Gum solution

   e. Preserving solution

   f. Water

   g. Copy paper

2. Procedures

   a. After copies have been duplicated, run a few sheets of paper with form rollers out of contact with master cylinder.

   b. Remove master from cylinder.

   c. Remove any ink or fountain solution on the master with the cotton pad moistened with water.

   d. Apply a thin coat of diluted gum solution over master.

   (NOTE: **If corrections or additions are going to be made on the master, apply a thin coat of preserving solution on master.)**

   e. Let master dry.

   f. Store master by placing a sheet of plain paper on both sides of the master.

   g. Place master with sheets of paper flat in the original box.

   h. Make sure storage area is cool and dry.

D. Cleaning the offset duplicator

1. Tools, equipment, and supplies required

   a. Clean rags

   b. Cleanup mats

c. Blanket and roller wash

d. Offset duplicator

2. Procedures

a. Remove excess paper.

b. Remove fountain concentrate.

c. Remove excess ink from ink fountain.

d. Remove ink fountain.

e. Remove ductor roller.

f. Clean ink fountain and ductor roller.

g. Attach cleanup mat.

h. Turn on machine to lowest speed.

i. Turn moisture control to highest setting.

j. Apply cleanup solution onto ink roller.

k. Move control lever to ink, and allow machine to run until cleanup mat is coated with ink.

l. Repeat steps J and K until mats stay fairly clean.

m. Turn moisture control to OFF position.

n. Clean impression cylinder.

o. Put roller conditioner on rollers.

p. Turn machine to night latch position.

q. Clean moisture unit tray.

r. Replace ink roller.

s. Replace ink fountain.

t. Move roller control to night latch position.

u. Clean any ink from machine.

v. Use brush to remove paper lint from machine.

w. Store supplies.

V. Careers and new technology

A. Jobs available in the printing field

1. Camera/stripping department

2. Production and management

3. Pressman

4. Bindery

B. Pay scale

1. Varies with skills.

2. Ranges from approximately $4.00 to $12.00 per hour.

C. Postsecondary training and education

1. Many vocational schools offer training in the field of printing.

2. Colleges offer courses in offset printing and related fields.

D. New technology

1. Offset controls

a. Push-button quantity selection

b. Lighted digital speedometer

c. Lighted digital indicator for copies left in run

d. Misfeed and double feed indicators

e. Low paper feed indicator

f. Single lever for ink/water balance control

2. Computers with modem to platemaker

3. Mastermakers for silver have masters contained in one unit.

4. Desktop publishing

ACTIVITY 1: TERMINOLOGY

INSTRUCTIONS: **Define the following offset terms.**

1. Offset plate

2. Offset duplicator

3. Platemaker

4. Plate (master) cylinder

5. Blanket cylinder

6. Impression cylinder

ACTIVITY 2: OFFSET PROCESS AND PROCEDURE

Project 1

INSTRUCTIONS: Define the offset process.

Project 2

INSTRUCTIONS: List the offset press systems.

1.

2.

3.

4.

5.

6.

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ACTIVITY 3: ADVANTAGES AND DISADVANTAGES

INSTRUCTIONS: **Discuss in paragraph form the advantages and disadvantages of the offset.**

1. Advantages

2. Disadvantages

ACTIVITY 4: TYPES OF MASTERS AND PLATEMAKERS

Project 1

INSTRUCTIONS: List the types of platemakers used in offset printing, and describe the types of masters (plates) made on each.

Types of platemakers

Description of types of masters used

ACTIVITY 4 (CONTINUED)

Project 2

INSTRUCTIONS: **Sequence the procedures used in preparing offset masters. Number from 1 to 9, with 1 coming first.**

_______1. Proofread typed material before removing it from the typewriter.

_______2. Insert offset master in typewriter. The side on which nonreproducible guide markings are printed is the side on which the typing is done.

_______3. Store supplies.

_______4. Type masters.

_______5. Remove typed material.

_______6. Clean type focus on typewriter if dirty.

_______7. When correcting an error, erase the image with the eraser very lightly, removing only the carbon deposit on the master.

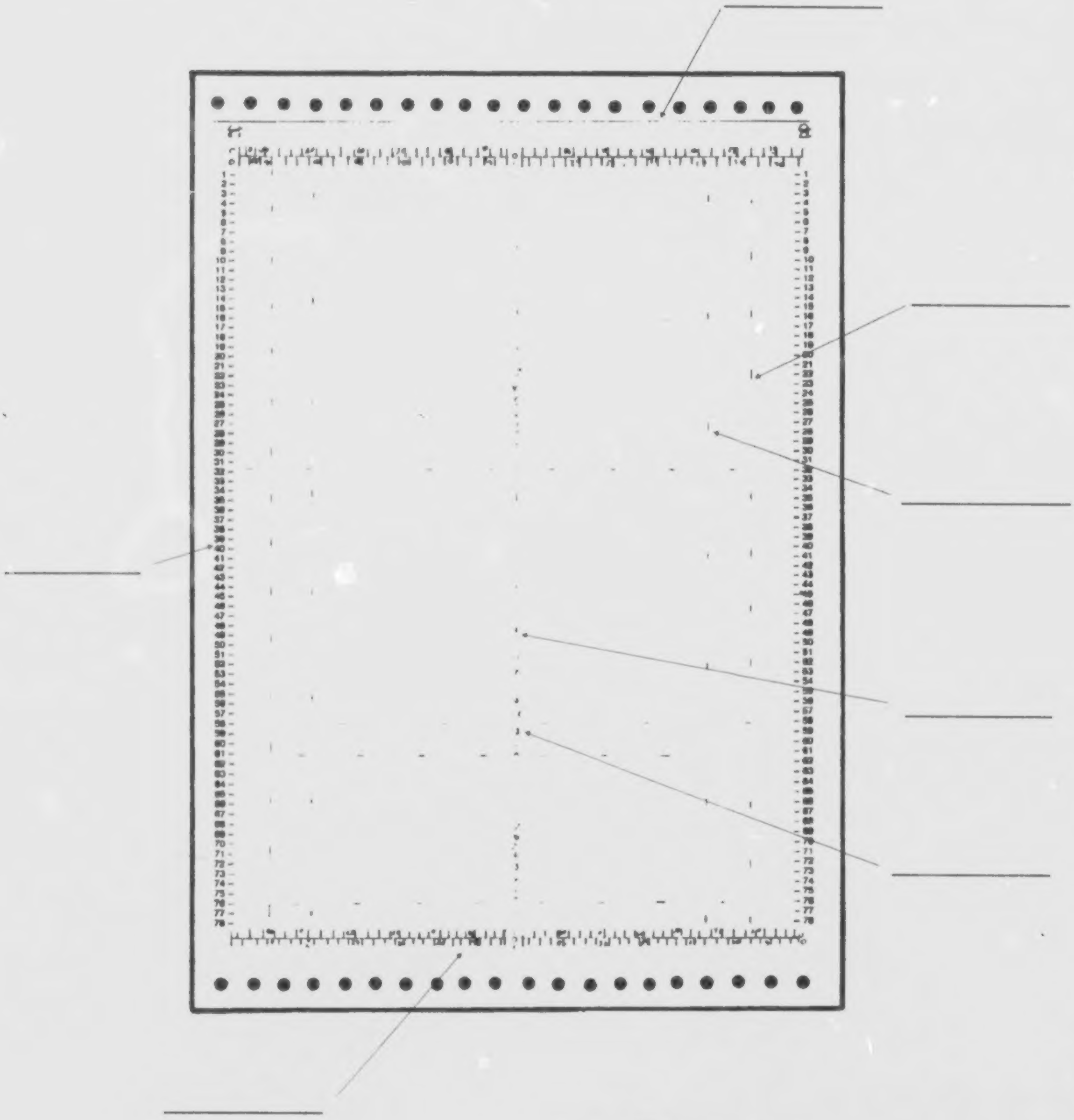
_______8. Turn the typewriter off.

_______9. Check to see if feed rolls and plate are free from smudges and deposits.

ACTIVITY 4 (Continued)

Project 3

INSTRUCTIONS: Identify parts of direct-image (pin bar) paper master.

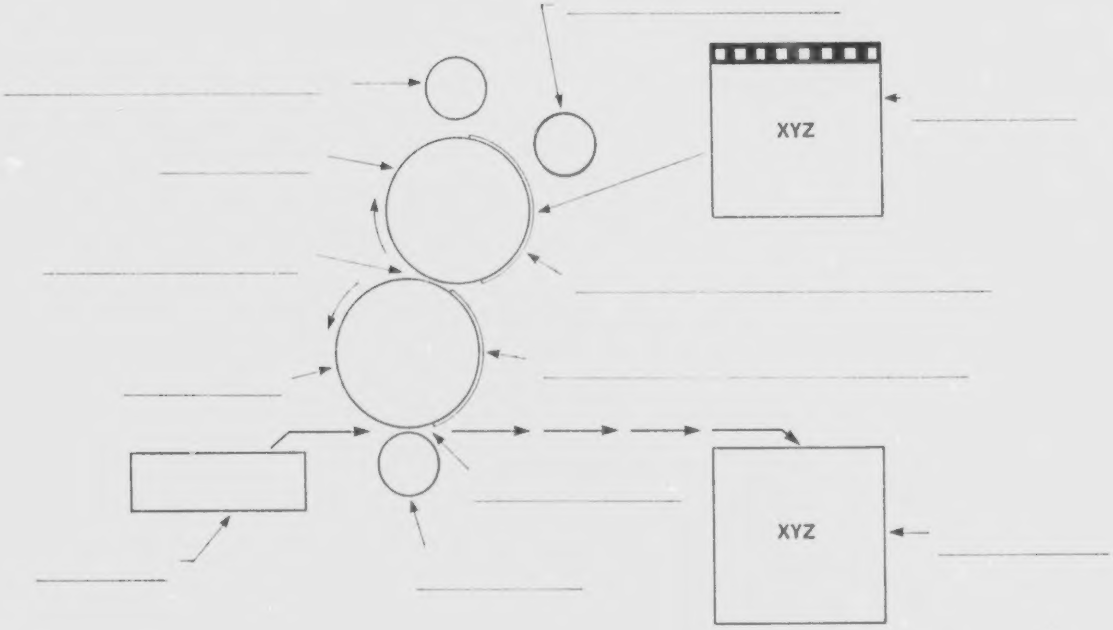


ACTIVITY 4 (Continued)

Project 4

INSTRUCTIONS: Identify parts of the reverse image process.

THE REVERSE IMAGE PROCESS



ACTIVITIES 5-6

INSTRUCTIONS: **Using the information, materials, and instructions provided by your teacher, prepare and duplicate the specified number of copies of this project.**

ACTIVITY 7: CAREERS AND NEW TECHNOLOGY

Project 1

INSTRUCTIONS: Write and key in letters to local community colleges and/or vocational-technical schools requesting a course catalog. Prepare a report on courses offered in related offset/printing fields.

Project 2

INSTRUCTIONS: Prepare a poster of a community college and/or vocational-technical school, showing a two-year plan of study in related offset/printing fields.

Project 3

INSTRUCTIONS: Write and key a letter to three major printing businesses requesting information on printing departments and trainee skills necessary to work in each department. Prepare a brief oral report of your findings.

SECTION III: OPERATING OFFICE MACHINES

UNIT I: REPROGRAPHICS

UNIT OBJECTIVE: Students will be able to prepare a document using desktop publishing techniques.

MODULE G: DESKTOP PUBLISHING

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Recognize desktop publishing terms.
2. Compare methods of traditional publishing and desktop publishing.
3. List the components of desktop publishing.
4. List basic areas of planning to consider when preparing a graphics document for desktop publishing.
5. Demonstrate the tools and procedures for producing simple documents using available desktop publishing procedures.

FOCUS: Desktop publishing technology is a form of reprographics that affects today's office. A working knowledge of modern reprographic technology enhances opportunities for the beginning office worker.

TERMINOLOGY

NOTE: **Some of these terms are not mentioned in the unit overview, but are frequently used in many desktop publishing software programs.**

Alignment	Similar to justification, but more inclusive when working with multiple columns.
Baseline	The imaginary horizontal line on which characters in a line of type rest.
Bleed	The technique of extending art or text in any direction over the edge of a page.
Blueline	A blocking or makeup tool used as a nonprinting guideline that does not appear in the final copy.
Border	A rule or linear design that surrounds any element of a page.
Bullets	Small black circles or other characters used in the margin to call attention to a portion of text.
CAD	Computer-aided design refers to software that is valuable in doing drawings or designs.
Camera-ready art	Art or printed material that is ready to be photographed by the printer.
Clip art	A collection of handy drawings stored on disk that can be inserted on a document.
Clipboard	A temporary storage place for text or graphics.
Copy	The written element of a publication, including text, captions, and headlines; also refers to reproducing files, documents, or parts of documents.
Cropping	Cutting off parts of an image or drawing to make it fit, or to show only selected areas.
Cut-and-paste	The technique of creating or editing a document by combining various texts and graphics.
Desktop publishing	A euphemism for the combination of typesetting and the creation of professional quality pages for reproduction.
Dialog box	A graphic device which permits a command to be selected by using a mouse.
Double-sided	A document that will be reproduced on both sides of a page.
Dummy	A mock layout showing placement of art and text.

Font	One of the many sizes and styles of type that may be available for printing.
Footer	One or more lines of text that appear at the bottom of every page.
Format	The overall layout of a printed page, including margins, columns, and type style and size.
Galley	A typeset and formatted draft used for proofreading copy.
Gray scale	The incremental range of intensity between pure black and pure white.
Greeking	Representation of text by symbolic bars or boxes that show position of the text but not the character.
Grid	A design template that divides a page with imaginary vertical and horizontal lines as an aid to placing and aligning type and graphic elements.
Headers	Text recurring at the tops of pages in a document; also words or passages used to set apart portions of text.
Helvetica	A popular sans serif typeface, also called Geneva.
Hyphenation	A feature that aids alignment by correctly breaking words that extend to another line.
Icon	An on-screen graphic representation of a tool, file, or command.
Image	A copy of a photograph or scanned document that is digitized and stored in memory or on disk.
Italic	A slanted style of a typeface.
Justification	The alignment of text at the right or left edge of a page or column.
Kerning	Adjusting the spacing between certain letters. Makes more efficient use of space and improves the appearance of a line of type.
Landscape	A printing mode in which the text or image is viewed lengthwise on the page.
Laser printer	A printer that produces a high degree of resolution by using a laser beam.
Layout	The planning and arrangement of text and graphics for a single page or an entire document.
Leaders	Dotted or dashed lines used to guide the reader's eye across horizontal space.
Leading	The amount of vertical spacing, expressed in points between two lines of type.
Mouse	A pointing device that lets the user move the cursor to select on-screen commands.

Orphans	A line of type that is separated from the rest of the paragraph by a page break.
Page	The portion of a document that will result in a page when printed.
Paste	Placing an existing picture or section of text into an area on a page.
Pasteboard	A work area that surrounds the page and is used to hold graphics and text during placement.
Pica	A unit of type measurement. Six picas equal one inch.
Pitch	The size of typed characters being used. The higher the number of the pitch, the larger the character. Another term for characters per inch.
Pixel	A single dot on a computer screen.
Point	A unit of type measurement. Twelve points equal one pica.
Pointer	A screen icon that moves in response to movement of the mouse.
Portrait	The normal printing mode in which text and images are viewed with the page oriented so that it is longer than it is wide.
Prompt	The screen icon that informs the user that the system is waiting for a command.
Proof	The final copy of a document, including graphics.
PUB	The file extension used for publication files on PC and MS-DOS computers.
Ragged	Text that is unevenly aligned on the left or right side of a column or page.
Resolution	The sharpness of an image on a screen or in printed form, measured in dots, spots, or lines per inch.
Rulers	Guidelines on the screen that aid in positioning text and pictures.
Scaling	The process of changing the size of an image, but not the proportions; it is also known as sizing.
Scanner	A device that optically reads data or images via reflected light, and converts it into machine-readable information.
Scanning	The process of converting text to a digitized form and transmitting it to the computer.
Scroll bar	An area at an edge of the screen that can be used for controlling scrolling with a mouse.
Single-sided	Pages of a document that are reproduced on one side of a sheet of paper.
Style sheet	Standard or designed layouts that can be saved on disk for use with any document.

Toner	A resinous black powder that forms the ink of laser printers and many types of copier machines.
Typeface	A particular design or style of type.
Typography	The art and science of working with type elements.
White space	The blank or unused portions of a page.
Widow	The final line of a paragraph that is separated from the rest of the paragraph by a page break.
Window	Areas that can be moved around, placed on top of one another, and removed without affecting the contents of other areas. Also, this is the name of a software product that is used with most desktop publishing programs.
Wrap	The ability to enclose text around graphic images on a page layout.
WYSIWYG	An acronym for "What you see is what you get." Generally used to describe systems that display full pages of text and graphics on screen as they will appear on the final copy.

UNIT OVERVIEW

I. Defining desktop publishing and its concepts

   A. Meaning of desktop publishing

      1. Desktop publishing is a euphemism for the combination of typesetting and the creation of professional quality pages for reproduction.

      2. The term *desktop publishing* does not have any real meaning; however, Paul Braenard of Aldus Corporation coined it as follows:

         a. The term *desktop* infers that the user can design a document at a computer on his/her desk.

         b. *Publishing* infers that the document produced can serve as final output.

      3. A better name for desktop publishing may be *page processing*.

      4. Currently, the term *desktop publishing* is used interchangeable with *personal*, *in-house*, or *page publishing*.

      5. Everyone has been involved with desktop publishing in some form if they have put words, pictures, charts, or graphs onto a piece of paper. Generally, this has been done by "cutting and pasting."

   B. The primary goal of desktop publishing is the production of a page. The page consists of type, graphics, and other design elements that are integrated to make a whole.

   C. History of desktop publishing

      1. Printing of books began with "demand printing." Scribes could copy books by hand. Sometimes this process took more than two years to complete.

      2. Gutenberg invented the printing press. This allowed books to be created inexpensively and with much greater speed.

      3. The printing process continued to become more and more defined through the 19th and 20th centuries.

4. New age of publishing--self-publishing
    a. In the 1960s, computers offered the new technologies for page composition and phototypesetting.
    b. Also, in the 1960s, IBM pioneered the development of word processing.
    c. Desktop publishing's birth in the mid-1980s provided the most significant change in printing since the invention of movable type.
        (1) Gutenberg is credited with bringing reading to the masses.
        (2) The computer is credited with bringing publishing to the masses.

D. Comparison of traditional and desktop publishing procedures.

1. Traditional publishing involves many complex operations, each carried out by a specialist:
    a. Writer and editor create and shape the content.
    b. A graphic designer designs the publication.
    c. A typesetter sets the type.
    d. A proofreader checks the copy.
    e. A camera operator creates halftone screens.
    f. A paste-up artist assembles all the elements into camera-ready copy for the printer.
2. Desktop publishing may only involve one person who is in charge of the entire process, and he/she:
    a. Writes and edits the documents.
    b. Designs the document, including selection of:
        (1) Layout.
        (2) Type face.
        (3) Graphic elements.

c. Proofreads.

d. Understands the printing process, including how to handle photographs.

e. Selects appropriate paper and ink.

f. Selects appropriate binding process.

g. Utilizes computers for many of the above processes.

II. Components of desktop publishing

A. Hardware

1. Computer

a. Professional-level software is written to run on IBM-PC compatibles or an Apple Macintosh.

b. Memory size can range from 512K to 40MB, depending on how sophisticated the program is.

c. Two floppy disk drives or a hard disk drive system are also necessary.

2. Printers eliminate numerous steps of typing and formatting a document on a phototypesetting machine.

a. Dot matrix printers are generally used only for proof copies, because they lack speed and quality.

b. Ideally, a laser printer is used for desktop publishing applications, because it can produce documents that are camera-ready at one-tenth of the cost of a document produced with the traditional typesetting equipment.

3. Monitors

a. The basic display systems are made up of two parts:

(1) The controller card that goes in the PC.

(2) The monitor that shows the image.

b. If an investment is made in a high-resolution screen, then a high-performance computer is needed.

        c. The professional software works with any high-resolution monitor.

        d. There is not a single-standard display unit for the IBM compatible.

        e. The personal publishing programs for other computers work with whatever monitor is normally used, as long as they have graphics capabilities.

    4. Mouse

        a. This small pointing device allows the user to easily move the pointer around the screen by moving the mouse on the table top. A mouse is a necessity for sophisticated desktop publishing programs.

        b. Using the keyboard for moving the pointer and selecting commands is quite tedious and slows down productivity.

    5. Image scanners

        a. Useful tools that will transfer photographs, illustrations, and logos into the computer so that they can be stored on a disk.

        b. Used to extend the options available with graphics.

        c. Allow a computer image of a picture to be included within a document so that the graphic can be cropped, rotated, and scaled to the appropriate size and shape.

    6. Disk storage--Most professional software cannot be run without a hard disk. Personal publishing programs will work with only diskettes, but the convenience of a hard disk is helpful.

B. Software is considered the heart of a desktop publishing operation.

    1. Word processing software should be selected first.

        a. It is used to key and edit the desktop publishing document.

        b. It can be used for final output, to prepare copy for a page makeup program, or for a type format program.

        c. It must be compatible with the publishing system software.

d. Spelling checker, text or graphics conversion programs, typeface utilities, and thesaurus are all useful features.

e. Some high-level word processing software programs may be used for desktop publishing.

2. Graphics software is used to enhance documents with graphs, charts, pictures, line drawings, logos, page decorations, clip art, and scanned images. These images are then transferred to page layout software and into the document before printing.

3. Page makeup software packages allow the user to mix and match the text from the word processing programs with images from the graphics programs.

a. Programs cannot function effectively without the help of other programs.

b. There is a wide range of page makeup programs that vary in price from under $100 to those that cost more than $1,000. The more sophisticated the program, the more the packages cost.

c. Two programs that dominate the business marketplace are Aldus Pagemaker and Xerox Ventura, which are both available for the Macintosh and IBM PC.

4. Many desktop publishing packages require Microsoft Windows to operate. Sometimes it is included in the publishing packages.

III. Operational procedures

A. Plan your publication.

1. Planning is the basis for graphics layout and design.

2. The following topics are included in the planning phase of designs:

a. Decide what messages will be communicated.

b. Decide on the audience.

c. Decide on the most effective format and means of receiving the document.

d. Check for consistency in document appearance.

e. Decide on the length of the document and the number of copies that need to be made.

f. Decide on the number of illustrations and their appropriateness with the text copy.

g. Check on the amount of money allocated for the document.

h. Decide on the document's emphasis.

B. Designing the appearance of a document is one of the most important procedures.

1. Manuals included with the software give instructions on how to design a publication. Time spent with these lessons is quite worthwhile. There is no point in running the program until there is a design from which to work.

2. Do not crowd the page; use a generous amount of white space to give the eye a rest.

3. Do not allow objects to wander over the page.

    a. Using a grid system ensures that everything lines up.

    b. A grid is the underlying structure of a page layout.

    c. A grid ensures the consistent alignment of margins, headers, footers, and columns.

    d. The grid is set up through the word processing or page layout package's margin settings, column guides, and ruler measures.

4. Graphics should be used in a purposeful manner; they should not clutter the page.

5. Only the minimum number of fonts should be used on a page.

6. Use lines or screens to differentiate parts of a page.

7. Do not use text lines that are too long for the eye to follow.

    a. Text is broken up in columns; it is important for the text to be easy to read.

    b. Instead of reducing the point size or the space between lines, words should be cut when text does not fit on a page.

8. Think about what you want to do before doing it. Get ideas from other publications.

C. Create the text and graphics.

1. **Text**--portions of a publication are usually created with a word processing program and saved on disk.

    a. The desktop publishing programs are intended as page layout programs, and only the typing of headlines, captions, and editing is usually done directly. The body of the text is copied to the screen page from word processing files.

    b. The layout program is used to manage the placement, size, fonts, and spacing.

2. Graphics

    a. Retrieve graphics the same way text is retrieved.

    b. Allow the program to control placement, size, dimensions, and cropping.

D. Use style sheets to save repetitious effort. These commonly used layout forms can be stored on disk and reused or altered as needed.

1. Style sheets are somewhat like templates, in that layout information can be stored, but without the text or graphics.

2. Several programs include a number of predesigned style sheets.

E. Manipulate document on the screen.

1. Unless one has a full-page screen, much scrolling back and forth is usually needed, using a mouse (or selected keys if no mouse is attached).

2. To work on a small area for editing or drawing, there are zoom commands that enlarge a small portion of the screen.

3. A section of the work can be identified and then moved, as a unit, to another location.

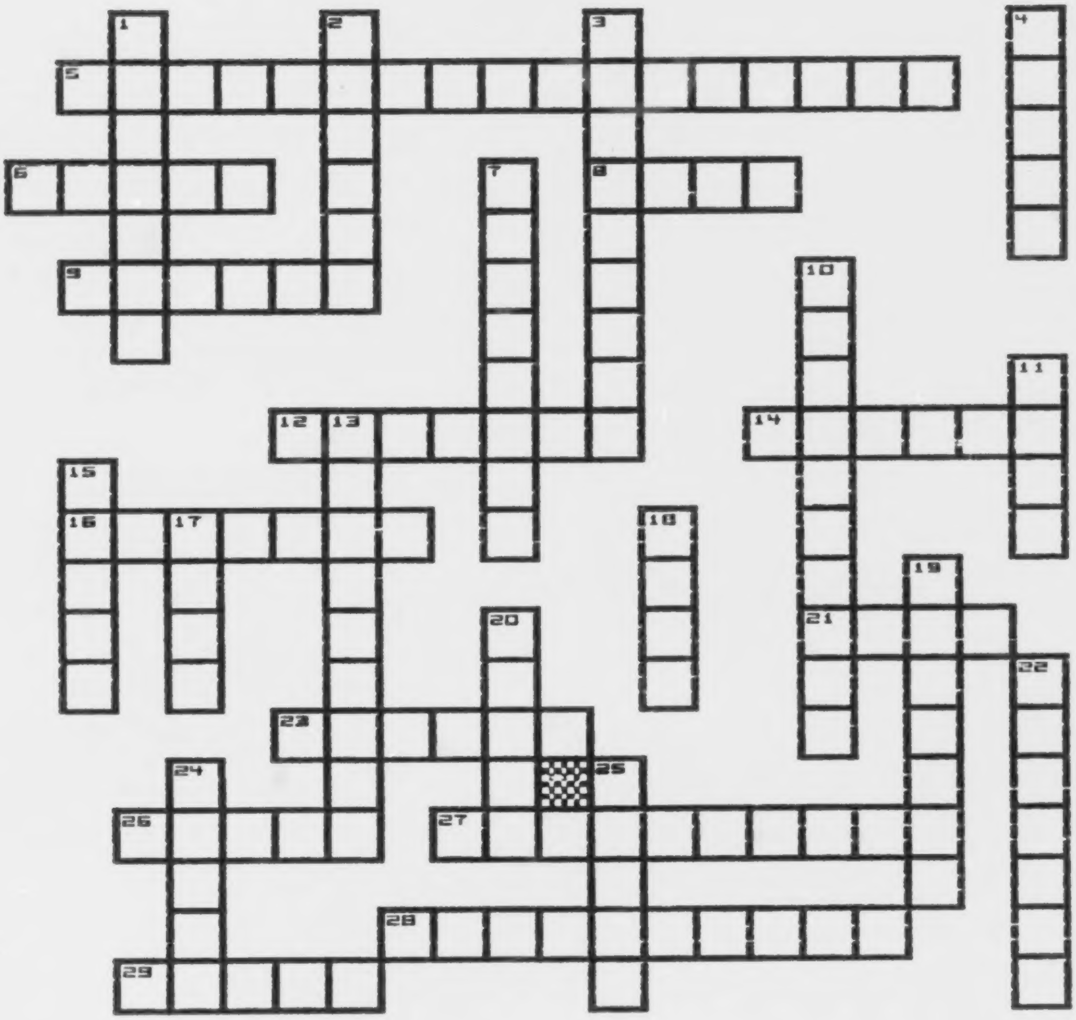
F. Use page layout software to create headlines and captions.

G. Print the document.

1. The final product can be directed to the printer, or it can be saved on a disk and moved to another computer for printer access.

2. A laser printer should be used to achieve the best results.

ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE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ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE CLUES

ACROSS CLUES

A euphemism for the combination of typesetting and the creation of professional quality pages for reproduction.

6. The final line of a paragraph that is separated from the rest of the paragraph by a page break.

8. A design template that divides a page with imaginary vertical and horizontal lines as an aid to placing and aligning type and graphic elements.

9. The screen icon that informs the user that the system is waiting for a command.

12. A collection of handy drawings stored on disk that can be inserted on a document.

14. A rule or linear design that surrounds any element of a page.

16. A line of type that is separated from the rest of the paragraph by a page break.

21. A unit of type measurement. Six equal one inch.

23. The planning and arrangement of text and graphics for a single page or an entire document.

26. Placing an existing picture or section of text into an area on a page.

DOWN CLUES

1. Text recurring at the tops of pages in a document; also words or passages used to set apart portions of text.

2. The overall layout of a printed page, including margins, columns, and type style and size.

3. Similar to justification, but more inclusive when working with multiple columns.

4. The blank space or unused portions of a page.

7. The normal printing mode in which text and images are viewed with the page oriented so that is longer than it is wide.

10. The art and science of working with type elements.

11. The ability to enclose text around graphic images on a page layout.

13. A printing mode in which the text or images are viewed lengthwise on the page.

15. A unit of type measurement. Twelve points equal one pica.

17. The portion of a document that will result in page when printed.

18. Another name used to indicate cutting off parts of an image or drawing to make it fit, or to show only selected areas.

ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE CLUES (Continued)

ACROSS CLUES

27. The sharpness of an image on a screen or in printed form, measured in dots, spots, or lines per inch.
28. Standard or designed layouts that can be saved on the disk for use with any document.
29. The final copy of a document, including graphics.

DOWN CLUES

19. The process of changing the size of an image, but not the proportions; it is also known as sizing.
20. A pointing device that lets the user move the cursor to select on-screen commands.
22. An acronym for "What you see is what you get."
23. A printer that produces a high degree of resolution by using a laser beam.
24. A resinous black powder that forms the ink of laser printers.

ACTIVITY 2: COMPARISON OF TRADITIONAL PUBLISHING AND DESKTOP PUBLISHING METHODS

INSTRUCTIONS: **In the two columns below, list and compare traditional and desktop publishing procedures.**

TRADITIONAL	DESKTOP

ACTIVITY 3: COMPONENTS OF DESKTOP PUBLISHING SYSTEMS

INSTRUCTIONS: **List the components of destop publishing.**

Hardware components

1.

2.

3.

4.

5.

6.

Software components

1.

2.

3.

ACTIVITY 4: PLANNING A DESKTOP PUBLISHING DOCUMENT

INSTRUCTIONS: **List the eight basic areas of planning to consider when preparing a graphics document for desktop publishing.**

1.

2.

3.

4.

5.

6.

7.

8.

ACTIVITY 5: DESKTOP PUBLISHING REPORT

Project 1

INSTRUCTIONS: **Work as a team to design a one-page document using the ideas provided by your teacher. Type the document, and make any corrections using liquid correction fluid. Find an appropriate graphic. Cut and paste the page so that it is camera-ready. Make two copies.**

Project 2

INSTRUCTIONS: **Working as a team, take the page layout that you designed in Project 1, and use a word processing program to develop the text and a graphics or clip art program for the graphics. Intergrate them into the desktop publishing program provided by your teacher. Print a copy. Compare the techniques you used in one of the other reprographic modules with the techniques used in this module in a brief, written report.**

SECTION III: OPERATING OFFICE MACHINES

UNIT II: ELECTRONIC CALCULATOR APPLICATIONS

UNIT OBJECTIVE: Students will be able to use the touch methods on the electronic calculator or the microcomputer keypad to complete business and personal financial applications.

STUDENT COMPETENCIES: After completing this unit, the student will be able to :

1. Apply the terms and definitions necessary for operating the electronic calculator in mathematical business problems.
2. Demonstrate the ability to use the touch system on the electronic calculator for computation of simple and complex mathematical problems.

FOCUS: Using the touch method on the keypad often facilitates business and personal use.

TERMINOLOGY

(NOTE: **The numbers in memory or the computations performed in memory do not affect the other numbers in the register.)**

Add mode	Tells the calculator to automatically register the decimal between dollars and cents; operator does not have to enter decimal with each amount. (Decimal selector set at "+" mode.)
Clear key	Identified by "C"; removes (clears) information from the register and readies the calculator to accept a new problem.
Credit balance	A negative balance obtained when the amount subtracted is greater than the amount added; identified by a minus sign (-) in the display, or by a minus sign or the letters "CR" on tape.
Decimal key	Identified by "."; enters a decimal when depressed.
Decimal selector	A switch, usually with settings from 0 to 4, which allows the operator to preset where the decimal will appear in a final answer.
Discount	An amount subtracted from a regular price.
Division key	Identified by "÷"; used in division.
Equals key	Identified by "="; tells the calculator to complete a computation and show the answer.
Home row	The middle row of keys (4,5,6) on a ten-key calculator or computer keypad.
Index a number	Depress the numeric keys of a number in order from left to right.
Memory clear key	Tells the calculator to set aside and call for later use (store in memory) a quantity of numbers. When a number is stored in memory, an "M" appears in the upper left corner of the display.
Memory minus key	Identified by "M-"; tells the calculator to store the number just indexed as a negative amount, or to subtract the number from what is already in memory.
Memory plus key	Identified as "M+"; tells the calculator to enter the number just indexed into memory, or to add the number to what is already in memory.
Memory recall key	Identified by "MR"; tells the calculator to show the amount that is stored in memory.

Minus key	Identified by "-"; used in subtraction.
Multiplication key	Identified by "x"; used in multiplication.
Operational keys	The keys of the electronic calculator that perform various functions, such as addition, subtraction, multiplication, division, total key, etc.
Percent	Identified by "%"; tells the calculator to compute the percent just indexed.
Plus key	Identified by "+"; used in addition.
Prorate	To divide or assess proportionally.
Register	The inner mechanisms of the calculator where the computation is performed.
Ten-key keyboard	A keyboard arrangement in which there are ten numeric keys, with 1-9 arranged in rows of three keys each, and an additional key or bar (0) below the last row. In addition to the numeric keys, there are various operational keys.
Total key	Identified by a "T" or by an "*"; tells the calculator to show the total of a calculation, and clear the register.
Touch method of operation	A means of operating a ten-key keypad by touch rather than by sight. Fingers remain "on base" at home row, except when striking other keys.

UNIT OVERVIEW

I. Types of calculators

  A. Electronic display calculator

  B. Electronic printing calculator

  C. Programmable electronic calculator

  D. Computer keypad

II. Preparing to use calculators

  A. Preparatory procedures

    1. Desk arrangement

      a. Remove clutter from your desk.

      b. Assemble calculator, pencil, and source papers.

    2. Calculator position

      a. Place the calculator to the operator's right or left at a comfortable height and angle.

      b. Place the calculator at approximately an arm's length away from the operator.

    3. Source documents should be placed directly in front of the operator.

    4. Proper posture

      a. Allows maximum speed and accuracy, and prevents fatigue.

      b. Suggested position:

        (1) Keep back and shoulders straight with both feet flat on the floor.

        (2) Slant arm on the same angle as the keyboard, and curve fingers over the home row keys.

        (3) Use quick strokes and a smooth, flowing rhythm.

B. Touch system

1. Allows the operator to consistently use the same finger to index a particular digit without looking at the key.

2. An exception to this method is the use of the zero and decimal keys.

    a. They are depressed with whichever finger is most comfortable and accurate.

    b. The zero and decimal keys may also have slightly different keyboard arrangements on some calculators.

3. This touch system can be transferred to any calculator or computer keypad; therefore, it is worth spending the time to gain a proficiency in the touch method.

4. Factors that allow for increased speed and accuracy

    a. Only one hand is needed on the calculator, thus freeing the other hand to keep track of where the operator is on the document.

    b. Using the touch system reduces fatigue by allowing the hand to remain in one place rather than bouncing back and forth between the source document and the calculator.

C. Holding pencil in writing hand

1. Placement

    a. The operator holds pencil in his/her writing hand in order to quickly record answers.

    b. Hold pencil loosely, folding the thumb over it toward the middle of the hand, with the point of the pencil pointing beyond little finger.

2. Advantages of developing this habit

    a. There are no wasted motions resulting from setting down and picking up the pencil.

    b. The pencil is easily moved to a writing position.

    c. Saves considerable time recording data.

    3. Operator's nonwriting or writing hand can be used to operate the calculator.

  D. Work habits

    1. Utilize time well.
    2. Accurately follow procedures.
    3. Read figures quickly and accurately.
    4. Look at groups of numbers rather than individual numbers.
    5. Record solutions quickly.
       a. Keep pencil in the writing hand.
       b. This prevents wasting time.
    6. Write legibly.
    7. Accuracy is more important than speed.
    8. Maintaining a good attitude contributes to success.
    9. Concentrate on what is being done.

III. Using the touch method

  A. Fingers that operate home row keys

    1. Index finger - 4 key
    2. Middle finger - 5 key
    3. Ring finger - 6 key

  B. Home row fingers stroke other keys

    1. Index finger
       a. Reach up from the 4 key to strike the 7 key.
       b. Reach down from the 4 key to strike the 1 key.
    2. Middle finger
       a. Reach up from the 5 key to strike the 8 key.
       b. Reach down from the 5 key to strike the 2 key.

    3. Ring finger
        a. Reach up from the 6 key to strike the 9 key.
        b. Reach down from the 6 key to strike the 3 key.

C. Use of other fingers
    1. Thumb is used to strike the 0 key.
    2. Little finger is used to strike the operational keys to the right of the numeric keyboard.
    3. Index finger is used to strike the operational keys to the left of the numeric keyboard.

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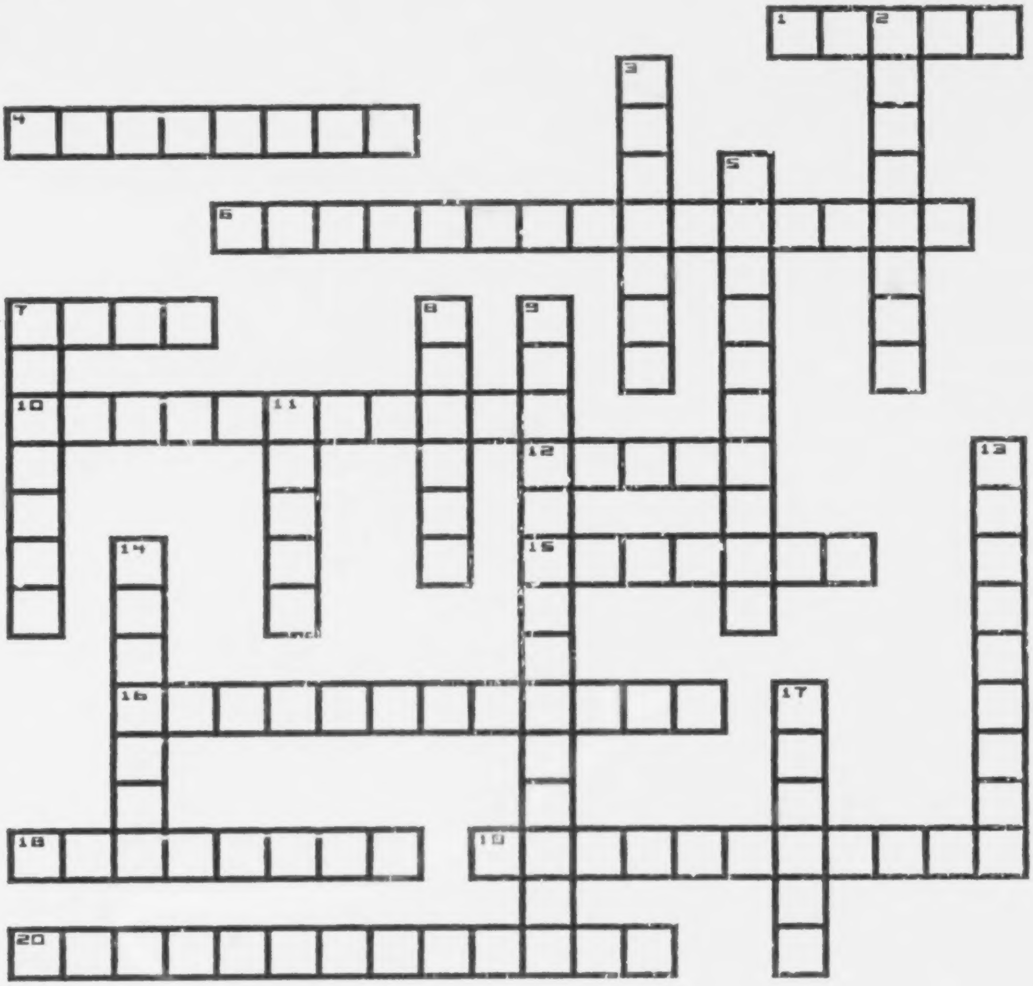
ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE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ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE CLUES

ACROSS CLUES

1. Depressing the numeric keys for a number in order from left to right.

4. The inner mechanisms of the calculator.

6. A switch, usually with settings from 0 to 4, which allows the operator to preset where the decimal will appear in a final answer.

7. A key used in addition.

10. The keys of the electronic calculator that perform various functions, such as addition, subtraction, multiplication, division, total key, etc.

12. Key identified by an "*".

15. Identified by "%".

16. Tells the calculator to show what is stored in memory.

18. Removes information from the register and readies the calculator to accept a new problem.

19. Identified by "÷".

20. A negative balance obtained when the amount subtracted is greater than the amount added.

DOWN CLUES

2. An amount subtracted from a regular price.

3. The middle row of keys on a ten-key calculator or computer keypad.

5. Identified by ".".

7. To divide or assess proportionally.

8. A keyboard arrangement in which there are ten numeric keys arranged in rows of three each, with an additional key or bar (0) below the last row.

9. Identified by the "x" key.

11. A means of operating a ten-key keyboard by touch rather than by sight.

13. Tells the calculator to complete a computation and show the answer.

14. Tells the calculator to automatically register the decimal between dollars and cents.

17. A key that tells the calculator to set aside and call for later use a quantity of numbers.

ACTIVITY 2: USING THE TOUCH SYSTEM

Project 1

INSTRUCTIONS: **Following the procedure given below, complete each problem using the touch method.**

Procedure for addition on an electronic calculator or computer keypad:

1. Clear the calculator/keypad.
2. Set the decimal selector at 0 on the calculator.
3. Place fingers in home row position.
4. Index the first number.
5. Depress the plus key.
6. Repeat steps 4 and 5 for all remaining numbers.
7. Depress the total key (on some calculators, the equals key).

(NOTE: **Some calculators show a running total while the problem is being completed. If your (machine does this, simply record the amount shown after step 6.)**

8. Record the total on your activity sheet.

Addition problems

A. Home Row: 4, 5, 6

1.	2.	3.	4.	5.
465	645	564	554	654
664	564	645	466	645
546	456	456	654	564
645	546	546	465	456
654	565	645	546	546

B. Top Row: 7, 8, 9

1.	2.	3.	4.	5.
798	797	787	998	897
789	889	797	879	879
879	977	888	999	779
987	987	989	797	898
978	889	897	789	799

ACTIVITY 2 (Continued)

Project 1 (Continued)

C. Bottom Row: 1, 2, 3, and 0

1.	2.	3.	4.	5.
201	332	230	221	310
123	210	131	332	202
321	320	303	312	320
302	132	232	100	321
103	103	333	300	312

D. All Rows

1.	2.	3.	4.	5.
645	554	956	132	703
477	885	879	696	669
260	679	546	598	425
598	221	132	703	834
356	300	310	465	186

6.	7.	8.	9.	10.
789	120	456	450	697
256	334	417	189	827
963	952	809	321	743
159	278	510	789	564
456	627	362	884	961

ACTIVITY 2 (Continued)

Project 2

INSTRUCTIONS: **Many electronic calculators differ in the procedure for entering and completing subtraction problems. Consult the operator's manual to learn the correct subtraction procedure for your model or computer, and complete each problem below.**

Procedures for subtraction:

1. Clear the calculator.
2. Set the decimal selector at 0.
3. Place fingers in home row position.
4. Proceed to index and enter numbers, and depress necessary operation(s) key(s) as instructed in your operator's manual.
5. Record the answers on your activity sheet. Show credit balances with a minus sign or the letters "CR."

(NOTE: **A number which is repeated consecutively need not be indexed again. Simply depress the plus or minus key the number of times the number is to be added or subtracted.)**

A. Subtraction problems

1. 246 -108	2. 773 -583	3. 948 -652	4. 305 -243	5. 894 -290
6. 582 374 -186 -90 + 200	7. 422 -755 937 -629 + 868	8. 620 543 -812 758 + -246	9. 485 574 415 -524 + -354	10. 880 -106 798 -50 + 333

B. Credit balance

1. 645 - 912	2. 726 - 983	3. 768 - 815	4. 545 - 610	5. 293 - 541

ACTIVITY 2 (Continued)

Project 2 (Continued)

6.	7.	8.	9.	10.
193	328	132	678	377
-865	-548	108	305	-600
-411	176	-835	110	52
72	-461	266	-729	23
+ 500	+ 259	+ 74	+ -526	+ 125

Project 3

INSTRUCTIONS: **Following the procedure given below, complete each problem using the touch method.**

Procedure for decimals:

1. Clear the calculator.
2. Set the decimal selector as required.
3. Place fingers in home row position.
4. Index and enter numbers, and depress necessary operation(s) key(s).
5. Record answers on activity sheet.

A. Set the decimal selector to accommodate the amount with the most decimal spaces.

1.	2.	3.	4.	5.
43.90	111.11	518.36	23.998	34.2
16.75	200.345	75.00	+56.5	75.16
2.25	150.26	98.206		+84.672
+55.666	+125.78	+183.44		

B. Set the decimal selector at "+" (add mode).

1.	2.	3.	4.	5.
$ 25.75	$ 218.00	$75.16	$88.88	$150.49
100.56	3,962.44	22.83	+44.44	+100.21
315.00	+ 571.21	78.47		
+75.82		50.19		
		+95.46		

ACTIVITY 2 (Continued)

Project 4

INSTRUCTIONS: **Many electronic calculators differ in the procedure for entering and completing multiplication problems. Consult the operator's manual for the correct multiplication procedure for your model, and complete each problem below.**

Procedure for multiplication:

1. Clear the calculator.
2. Set the decimal selector at 2.
3. Place fingers in home row position.
4. Proceed as instructed for multiplication in the operator's manual.
5. Record the products on the activity sheet.

A. Multiplication problems

1. 10 x 9
2. 120 x 3
3. 125 x .25
4. 2.66 x .6
5. 32.6 x .75
6. 115 x 235
7. 9,684 x .35
8. .402 x 26
9. 25 x 75
10. 88 x .66

B. Multiplication with constants

A repeated multiplicand or multiplier (a constant) need only be entered once. The various models of calculators have different methods for multiplication with constants. Check the operator's manual for your calculator for the correct procedure to follow in working these problems.

1. 100 x 12
2. 25 x 12
3. 3.66 x 12
4. 749 x 12
5. 833 x 12
6. 65 x 4
7. 65 x 18
8. 65 x .20
9. 65 x .33
10. 65 x 9

ACTIVITY 2 (Continued)

Project 5

INSTRUCTIONS: **Many electronic calculators differ in the procedure for entering and completing division problems. Consult the operator's manual for your model, and complete each problem below.**

Procedures for division:

1. Clear the calculator.
2. Set the decimal selector at 1.
3. Place fingers in home row position.
4. Proceed as instructed for division in the operator's manual.
5. Record the quotients on the activity sheet.

A. Division problems

1. 125/5 =
2. 250/50 =
3. 250/60 =
4. 916/15 =
5. 10.5/4 =
6. 78/16 =
7. 100/3 =
8. 750/25 =
9. 6,593/23 =
10. 375/500 =

B. Division with constants

A repeated dividend or divisor (a constant) need only be entered once. The various models of calculators have different methods for division with constants. Check the operator's manual for your calculator for the correct procedure to follow in working these problems.

1. 182/14 =
2. 567/14 =
3. 485/14 =
4. 315/14 =
5. 289/14 =
6. 345/8 =
7. 345/12 =
8. 345/13 =
9. 345/20 =
10. 345/9 =

ACTIVITY 2 (Continued)

Project 6

INSTRUCTIONS: **Following the procedure given below, complete each problem using the touch method.**

Procedure for calculating percentages:

1. Clear the calculator.
2. Set the decimal selector at 2.
3. Index the percent.
4. Depress the percent key.
5. Depress the equals key. (Some calculators automatically show the percent amount after the percent key is depressed.)
6. Record the percentage on the activity sheet.

A. Percentage problems

1. 10% of 100 =
2. 25% of 200 =
3. 37% of $44.45 =
4. 20% of $18.00 =
5. 67% of $150.00 =

B. Using the procedure for calculating percentages, calculate the commission each of the following sales persons earned on his/her weekly sales total.

Salesperson	Sales Total	Percent of Commission	Commission Earned
Amy Anderson	$250.00	5%	1.
Nick Carter	$215.00	4%	2.
Jennifer Gold	$300.00	7%	3.
Melissa Hamby	$450.00	10%	4.
Mark Kastle	$275.00	6%	5.

ACTIVITY 2 (Continued)

Project 7

INSTRUCTIONS: **Following the procedure given below, complete each problem using the touch method.**

Procedure for calculating discounts:

1. Clear the calculator.
2. Set the decimal selector at 2.
3. Find the percentage using the procedure learned in Project 6. This amount is the discount. Record the discount on the activity sheet.
4. Index original amount.
5. Using your calculator's subtraction function, subtract the discount (found in Step 3 above) from the original amount.

(NOTE: **Some calculators will automatically subtract a percentage which is to be discounted. Check the operator's manual for your calculator to see if the machine you are using does this.)**

6. Depress the equals key (or record if automatically shown) to obtain total after discount. This is the net amount or sale price.
7. Record the net amount on the activity sheet.

The following list represents items in inventory which are to be sold at a special sale. Figure the amount of discount and the sale price for each.

		Amount of Discount	**Sale (NET) Price**
1.	$28.00 less 15%		
2.	$150.00 less 6%		
3.	$3,060.00 less 4%		
4.	$180.00 less 20%		
5.	$22.00 less 33%		
6.	$43.00 less 50%		
7.	$972.00 less 8%		
8.	$1,456.00 less 10%		
9.	$559.00 less 10%		
10.	$789.00 less 2%		

ACTIVITY 2 (Continued)

Project 8

INSTRUCTIONS: **Following the procedure given below, complete each problem using the touch method.**

Procedure for proration:

1. Clear the calculator.
2. Set the decimal selector at 2.
3. Add the floor space for each department to obtain the total floor space. Record the amount on the activity sheet.
4. Enter the total floor space as a constant divisor.
5. Divide the total floor space into the floor space for each department to obtain the percentage of the expense to be prorated to each department (round off percentages). Add the percentages to verify that they total 100 percent
6. Record the percent of total floor space for each department on the activity sheet.
7. Enter the total rent expense as a constant multiplicand.
8. Multiply the total rent by the percent obtained in Step 5 for each department. This is the prorated rental expense to be paid by each department.
9. Record the prorated rental expense for each department on the activity sheet.

Department	**Floor Space in Square Feet**	**Percent of total Floor space**	**Prorated Share of Rental Expense**
Men's Wear	1,215	________	________
Misses	1,460	________	________
Junior Coordinates	875	________	________
Junior Dresses	640	________	________

Total Floor Space ________

Total Rent Expense $ 10,256.00

SECTION III: OPERATING OFFICE EQUIPMENT

UNIT III: COMPUTER APPLICATIONS

UNIT OBJECTIVE: Students will be able to correctly key and format, using a word processing program on the microcomputer.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Define and use formatting and information processing terminology.
2. Define information processing.
3. Describe the steps in a document cycle.
4. Categorize the production features of word processing software.
5. Identify uses of function keys sometimes used with word processing software.
6. Create, revise, spell check, and print a hard copy of the document.
7. Produce documents to include the following format changes: line spacing, line alignment, type styles, and margin adjustments.

FOCUS: Keyboarding continues to be the primary means of data entry and manipulation; therefore, keyboarding skills and the knowledge of various keyboarded formats and applications are vital in business fields.

TERMINOLOGY

Application	Use of information processing software, such as in creating letters, reports, and mailing lists.
Backup	A duplicate file.
Block	A selected portion of text which can be operated upon as a unit.
Center	To balance text or headings between margins.
Central Processing Unit (CPU)	The "brain" or internal operating unit of a computer system.
Command keys	Keys that request the word processing software to instruct the processor to do something.
Copy	To reproduce a block within a document or in another document.
Cursor	A square, a line, or a dot that shows on the display screen the point where the next symbol, number, letter, or space will be entered.
Cut and paste	To remove a block from one part of a document and replace it in another location.
Delete	To erase characters from a document and close up the vacated space.
Desktop publishing	A euphemism for the combination of typesetting and the creation of professional quality pages for reproduction.
Double-space (DS)	Leaving one blank line space between displayed or printed lines of copy.
Draft	A rough, unedited copy.
Dual function or code keys	A key that can perform two functions and is usually used together with a control or code key.
Edit	Any additions, deletions, changes, respacing, or moving of text within a document.
Enter or key	To input keystrokes into the CPU.
Font	One of the many sizes and styles of type that may be available for printing.

Footer	A line of text repeated at the bottom of each page.
Form letter	The same letter to be sent to a number of different people, usually prepared in advance and duplicated.
Format	Arrangement on a page, including margins, spacing, type size, tab stops, etc.
Formatting keys	Function keys that control the physical layout of a document, such as margins, page length, vertical line spacing, tabs, indentions, centering, etc.
Function keys	Special keys that, when used alone or in combination with other keys, allow special functions such as centering, underlining, etc.
Hard copy	Written, typed, or printed copy; a document.
Header	A line of text which appears at the top of each page.
Hyphenation	A feature which permits dividing words at the end of a line, permitting a more even right margin.
Indent	To move in from the margin, such as in the first line of a paragraph.
Input	Keying text/data into a computer or typewriter.
Insert	Adding additional characters, words, spaces, or lines to existing text.
Justify	Print with straight margins on both sides.
Keyboard	The arrangement of alphabetic and numeric keys on a "board" for inputting information into a computer, dedicated word processor, or typewriter. Also, the act of keyboarding, or typing.
Locating keys	Keys used to find information saved in temporary memory or on permanent storage media.
Move	Changing the location of a block of text within a document.
Orphan	The last line of a paragraph which is printed at the top of a page after a page break.
Output	The hardcopy, or printed copy, from a computer or word processor.
Page break	A manual or automatic command to control when a new page will begin.

Pitch	The measure of type size (characters per inch).
Print	To produce hard copy, or paper copy, from a computer or word processor.
Procedure	The step-by-step process for completing a job.
Retrieve	To obtain stored information.
Revision	Editing and making typewritten corrections.
Scrolling	Moving a portion of the text on screen into view.
Soft copy	Information stored on a magnetic medium or on a CRT screen.
Software	Instructions that tell the computer the operating instructions/commands of the word processor.
Storage media	Media where information is stored.
Store	To save information on magnetic media so that it may be used later.
Tab	A preset distance from the left margin to which the cursor can be moved with a single keystroke.
Typeover	A condition in which characters are replaced, rather than inserted, when typed into existing text.
Widow	The first line of a paragraph which is printed at the bottom of a page, before a page break.
Word processing	The writing and storing of letters and other documents on a computer, an electronic typewriter, or a word processor.
Word wrap	A feature that sends text to the beginning of the next line when you type beyond the margin.

UNIT OVERVIEW

I. Information processing involves collecting/creating, recording, manipulating, storing, and printing data to produce useful information. The productivity of the business office has increased as a result of computerized procedures and equipment that are now used to create, sort, reproduce, and distribute information.

A. Information processing applications are almost endless, ranging from tasks that can be done on a typewriter to entirely new tasks that are not possible without the power of the computer. In computerized information processing, documents are created, revised, stored, retrieved, and printed.

1. Memos, letters, and reports can be entered, edited, revised, saved, and printed in a variety of formats.

2. Form documents, such as contracts, sales letters, and collection notices, can be prepared and used many times.

3. Electronic mail documents can be prepared for telecommunication via a modem over telephone lines.

4. Product-related materials, such as catalogs, advertising circulars, reports, articles, and books, are camera-ready.

5. Mathematicians, scientists, and engineers use programs which allow the use of symbols, such as the letters of the Greek alphabet, that are necessary in mathematics and statistics. These programs also allow the easy entry of algebraic equations.

B. Integrated information processing

1. Combines extensive information processing capabilities with other functions such as spreadsheets, graphics, and database management systems.

2. Using an information processing program, the inclusion of numbers, graphs, and tables in the text of a document is more easily accomplished.

C. Components of information processing equipment

1. Computers all have certain basic parts regardless of the computer's size, shape, expense, and level of complexity.

a. **Central processing unit (CPU)**--the "brains" of the computer.

b. **Memory**--the part of the computer where information is stored. Two types of memory are ROM (read-only memory), which is permanent, and RAM (random-access memory), which is changeable and reusable.

2. **Input devices**--the keyboard is the most common input device for entering data.

    a. Each keystroke must be converted into an electrical signal for the central processing unit.

    b. The mouse, joystick, and optical character reader are three other types of input devices.

3. **Output devices**--release the information stored by the electrical signal in the central processing unit. Printers and CRT screens are the two most common types of output devices.

4. **Auxiliary storage**--the secondary or external memory for storing information from the computer for later use. Two forms of secondary storage are floppy disks and hard disks.

D. **Storage components**--the ability to store and retrieve data is an important part of information processing. Two external storage devices used primarily for information processing are:

1. **Floppy disk**--a magnetic medium which resembles a phonograph record, consisting of a disk, enclosed within a protective jacket, that is inserted into a diskette drive. Each floppy disk has the storage capability range of approximately 80,000 - 3,000,000 characters.

2. **Hard disk**--a rigid metal plate that allows data to be recorded on its head and is often permanently fixed within the disk drive.

E. Basic features of information processing

1. Users can modify portions of text by:

    a. Making corrections without having to retype correct material.

    b. Changing left and right margins and tab stops.

    c. Copying or moving portions of text.

2. The screen indicates the following:

    a. Text within the document.

    b. The top and bottom of the page.

    c. The left and right margins.

    d. The tab settings.

    e. The cursor where the next typed character will appear.

3. Parts of the keyboard

    a. **Cursor control keys**--allow the user to move the cursor and type anywhere in the text area on the screen.

    b. **Function keys**--used to execute commonly used commands, such as underlining and printing.

    c. **Alphanumeric keys**--the numeral, the character, and the symbol keys found on both the typewriter and computer keyboards.

4. Word wrap is a feature which automatically starts a word at the left margin of the next line if there is not enough room on the previous line.

II. **Document cycle**--although not all documents go through all of these steps, there is a sequence which is normally followed in the processing of printed information.

A. **Input**--information is read from source documents that may be in many forms (handwritten, typed, extracted from several sources, or transferred from another document), and key-entered into a computer using word processing software.

B. Processing

1. Once entered, the text can be edited, revised, combined, rearranged, formatted, or any combination of actions desired to reach its completed form.

2. This involves the use of various features of the word processing software.

3. Regardless of the final distribution, the processed document is normally saved on disk at this point.

C. Output

1. The completed document is printed on a local or remote printer, according to the desired form.

2. One or many copies may be produced.

3. Often, each copy is personalized with an individual's name and address by a word processing feature called "mail/merge."

D. Distribution or communication of information

1. While the first three steps are most often completed by one individual, the finished documents are frequently turned over to another worker for distribution.

2. This step includes mailing and/or hand delivering for in-house distribution.

3. Some type of record or checksheet may be used to verify the date and destination(s).

E. Storage

1. A "hard" copy may be filed for later reference.

    a. In the case of correspondence, it may be filed under the name of the recipient.

    b. Memos or bulletins are often filed by category.

2. The saved version on disk may also be stored, with date and identification, particularly if all or part of the document may be used again.

3. Recipients of copies of the document may also store the copies for later reference.

F. Retrieval

1. The filed document may be pulled out for action or consideration by a recipient, or for reference by the originator.

2. The stored disk version will be retrieved when a modified form of the document is needed at a later date.

III. **Production features**--word processing software becomes increasingly sophisticated as new products appear on the market to compete with the old. Professional-grade software now includes many added features. These generally take up considerable memory space, so they are not available for computers with minimal memory.

A. Spelling checker

1. Flags any words not found in the memory-resident dictionary.

2. Sometimes additional help is given by suggesting one or more possible substitutes for a correct spelling.

3. The user is allowed to add words to the dictionary and to allow for specialized vocabularies or frequently used names.

B. Thesaurus

1. Provides synonyms to improve writing.

2. The user points the cursor to a word in the text, gives the command to the thesaurus, and a list of synonyms is displayed.

3. Another command is selected to replace the original term with one from the list.

C. Arithmetic functions

1. Allows for totaling columns of figures without exiting the program.

2. Advanced calculation capabilities are not included within word processing software, but often reports and correspondence have sections with columns of figures or tables of figures.

3. Usually, only addition and subtraction are available within the program.

D. Search feature

1. Search and replace allows entering a search-and-replace string for selective replacement.

2. A global search-and-replace command is used for advanced revisions.

E. Text enhancement features

1. Use centering or indent block to adjust text.

2. Boldface, italics, and underline can be used for emphasis.

3. Headers and footers can be used as descriptive titles throughout a document and usually refer to title, subject, author, date, and page number.

4. Pagination numbers document pages automatically.

IV. **Function keys**--use functions of word processing programs.

A. Keyboards on most microcomputers have a group of special keys that can be used by application software for any desired purpose. The designation of keys varies considerably among software products. The following are examples of typical function key assignments:

1. **Help screen**--invokes immediate explanations related to the selected command or status.

2. **Exit**--a fast way to end the program, without having to go through a series of commands.

3. **Print**--output to a previously defined printer. The options related to printing must be chosen before using this key command.

4. **Overtype/insert**--toggles between two methods of editing typed data. Depending on the type of work being edited, it is sometimes desirable to overtype rather than use the default mode, generally the insert mode.

5. **Files**--allows access to operating system file-handling commands. The purpose is usually for using operating system commands without leaving the word processing program.

B. Functions of word processing software

1. **Help**--this function supports your use of the software package. If you get "stuck," or you do not know what to do next, ask for on-screen help.

    a. Most commercially produced software has some form of help function.

    b. Depending on the software, help may be made available by topic, function, or level.

    c. Some software packages provide help through their basic structure, because they are menu- or command-driven.

2. **Formatting**--the text is the first information the system needs in order to be formatted. Formatting is the process of changing the left, right, top, and bottom margins, or changing the line spacing for part of the document (or for an entire document). There are several formatting options available in the different software packages.

    a. **Margins**--left and right margins can be set for the entire document or paragraph by paragraph. You may want to use the default settings of the system.

    b. **Tab stops**--used to indent text and align tables and lists.

        (1) Some programs allow you to set tabs anywhere; others have limits.

        (2) Decimal tabs are used to align decimal points in columns of numbers.

        (3) Flush-right tabs allow you to align text flush right instead of the usual flush left.

    c. **Paragraph indents**--paragraphs can be formatted so that the first line is indented from the rest of the paragraph. Also, the paragraph can be formatted so that all lines are indented from the left margin or from the left and right margin.

d. **Character formats**--include boldface, centered, doublestrike, italic, underline, double underline, subscripts, superscripts, and strike through. These can be used in combinations and assigned to a character, word, paragraph, block, or the entire document.

3. **Entering and editing**--the advantage of information processing is its ability to create and revise text easily. The following are some of the editing options software packages contain:

   a. **Insert and replace (overtype) mode**--adding text to existing documents.

      (1) When the insert mode is used, characters to the right of new text move to make room for it.

      (2) When replace (typeover) mode is used, the text does not move, and the new text replaces the old.

   b. **Deleting**--removing unwanted text from the existing document.

   c. **Reformatting**--when text is inserted or deleted in existing text, some programs automatically format the text to realign it with the margins; others require a command.

   d. **Line spacing**--allows the user to specify the type of spacing (single or double) between lines.

   e. **Block operations**--selecting a section of text and performing other functions on that section. For example, you can delete, center, underline, boldface, or copy a block.

   f. **Moving or cut/paste**--used when words, sentences, paragraphs, and entire pages of text are correct, but out of sequence. Identify how much text is to be moved ("cut and lifted") from its present location, and insert ("paste") it into the new location.

      (1) The program automatically adjusts the surrounding text to make room for the new block of text.

      (2) Many software programs can move blocks of text directly from one file to a new file.

   g. **Copy**--similar to cut-and-paste operation.

      (1) When using the copy operation, the original version of the text is not affected by the changes.

      (2) Identify how much text is to be copied, then move to the new location and insert the copied text.

h. **Search and replace**--search makes it easy to locate specific text. Replace is often coupled with the search function.

(1) The search and replace feature allows for selected changes to be made to all occurrences of a particular character, word, or phrase.

(2) The computer searches through the document character by character to find the selected text.

4. **Printing**--a means of interpreting specific print options from the screen display to the printer. There are a number of ways to format the page for output.

a. **Top and bottom margins**--can be set for the entire document or each page.

b. **Right-justification**--extra, equalized space is added between the words in lines of text so that the right margin is straight.

c. **Headers and footers**--printed at the top and bottom of the page.

(1) When dealing with a multiple-page report, special information may be desired at the top and/or bottom of each page.

(2) This can be entered once and then copied automatically onto each page.

d. **Page number**--some programs will allow the operator to print page numbers on multipage documents. There are several options for their location, such as top or bottom of the page, left, right, center, on odd pages, or on even pages.

e. **Pitch**--some programs permit the printer's pitch to be changed as a document is being printed.

f. **Page breaks**--the user can control where page breaks occur. Ideally, page breaks should be displayed on the screen.

g. **Merge-printing**--used to print many copies of a form document with data integrated from another source, manually or from a file.

5. **Advanced features**--there are several advanced features that are not supported by all software; however, the following features are worth noting:

a. **Split screen**--allows the display of two or more sections of the same file or separate files on the screen at the same time, so they can be compared, moved, or copied.

b. **Column mode**--allows work with columns.

   (1) The number of columns available for use will vary on software.

   (2) A few programs permit creating text on the screen in one column, and then printing it out in two or more columns.

c. **Spell check**--used to find and correct misspellings. Some run from within the program, while others are available as separate packages.

d. **Thesaurus**--used to suggest synonyms for a selected word.

e. **Outlines**--allows for the creation of an outline for use with text entry, editing, and organization.

f. **Macros**--used to record and then manipulate a series of recorded keystrokes.

g. **Windows**--two or more documents can be displayed on the screen at the same time.

h. **Style checkers**--used to check text for style and usage.

i. **Math/calculator**--a few programs have the capability to make calculations for the key operator.

j. **Automatic file back up**--the most recent version of a document is saved in the original file, and the previously saved version will be moved to a backup file where it can be retrieved if necessary.

k. **Automatic saving**--prevents losing files of new or revised documents unintentionally when the user quits the program.

ACTIVITY 1: TERMINOLOGY

Project 1

INSTRUCTIONS: Match the appropriate term to its definition.

A. Application
B. Form letter
C. Hard copy
D. Function keys
E. Block
F. Cursor
G. Format
H. Footer
I. Header
J. Backup
K. Indent
L. Copy
M. Enter or key
N. Hyphenation
O. Cut and paste
P. Center
Q. Delete
R. Edit
S. Formatting keys
T. Draft
U. Central processing unit
V. Command keys
W. Double-space
X. Dual function or code keys

_______ 1. Arrangement on a page, including margins, spacing, type size tab stops, etc.

_______ 2. To move in from the margin such as in the first line of a paragraph.

_______ 3. A duplicate file.

_______ 4. Use of information processing software, such as in creating letters, reports, and mailing lists.

_______ 5. A line of text which appears at the top each page.

_______ 6. A line of text repeated at the bottom of each page.

_______ 7. Written, typed, or printed copy; a document.

_______ 8. To balance text or heading between margins.

_______ 9. Leaving one blank space between displayed or printed lines of copy.

_______ 10. To remove a block from one part of a document and replace it in another location.

_______ 11. A selected portion of text which can be operated on as a unit.

_______ 12. A feature which permits dividing words at the end of a line, permitting a more even right margin.

_______ 13. The "brain" or internal operating unit of a computer system.

_______ 14. Special keys that, when used alone or in combination with other keys, allow special functions such as centering, underlining, etc.

_______ 15. Any addition, deletion, changes, respacing, or moving of text with a document.

_______ 16. A key that can perform two functions and is usually used together with a control or code key.

_______ 17. Keys that request the word processing software to instruct the processor to do something.

_______ 18. To reproduce a block within a document or in another document.

_______ 19. To erase characters from a document and close up the vacated space.

_______ 20. Function keys that control the physical layout of a document, such as margins, page length, vertical line spacing, indentions, centering, etc.

_______ 21. To input keystrokes into the central processing unit.

_______ 22. The same letter to be sent to a number of different people, usually prepared in advance and duplicated.

_______ 23. A rough, unedited copy.

_______ 24. A square, line, or dot that shows on the display screen the point where the next symbol, number, letter, or space will be entered.

ACTIVITY 1 (Continued)

Project 2

INSTRUCTIONS: Match the appropriate term to its definition.

A. Software
B. Input
C. Keyboard
D. Word wrap
E. Storage media
F. Locating keys
G. Tab
H. Scrolling
I. Word processing
J. Revision
K. Retrieve
L. Widow
M. Typeover
N. Move
O. Store
P. Orphan
Q. Procedure
R. Soft copy
S. Pitch
T. Print
U. Page break
V. Output
W. Justify
X. Insert

_______ 1. Information stored on a magnetic medium or on a CRT screen.

_______ 2. Media where information is stored.

_______ 3. To save information on magnetic media so that it may be used later.

_______ 4. Moving a portion of the text on screen into view.

_______ 5. Changing the location of a block of text within a document.

_______ 6. Print with straight margins on both sides.

_______ 7. Editing and making typewritten corrections.

_______ 8. The hard copy, or printed copy, from a computer or word processor.

_______ 9. The last line of a paragraph which is printed at the top of a page, after a page break.

_______ 10. The first line of a paragraph which is printed at the bottom of a page, before a page break.

_______ 11. A condition in which characters are replaced, rather than inserted, when typed into existing text,

_______ 12. The step-by-step process for completing a job.

_______ 13. The measure of type size (characters per inch).

_______ 14. To obtain stored information.

_______ 15. Keys used to find information saved in temporary memory or on permanent storage media.

_______ 16. A preset distance from the left margin to which the cursor can be moved with a single keystroke.

_______ 17. The writing and storing of letters and other documents on a computer, an electronic typewriter, or a word processor.

_______ 18. A feature that sends text to the beginning of the next line when you type beyond the margin.

_______ 19. Instructions that tell the computer the operating instructions/commands of the word processor.

_______ 20. A manual or automatic command to control when a new page will begin.

_______ 21. To produce hard copy, or paper copy, from a computer or word processor.

_______ 22. Adding additional characters, words, spaces, or lines to existing text.

_______ 23. Keying text/data into a computer or typewriter.

_______ 24. The arrangement of alphabetic and numeric keys on a "board" for inputting information into a computer, a dedicated word processor, or a typewriter. Also, the act of keyboarding or typing.

ACTIVITY 2: DOCUMENT CYCLE

Project 1

INSTRUCTIONS: Outline and explain the six steps in the document cycle.

1.

2.

3.

4.

5.

6.

ACTIVITY 2 (Continued)

Project 2

INSTRUCTIONS: **Choose one of the following situations, and using the form provided, describe how the related documents might progress through each of the six steps in the document cycle.**

1. Every year, a charitable organization sends out personalized letters asking for donations of money from the people on its mailing list. The organization will follow up after 30 days with another letter to those who have not responded, but sends an immediate response when a donation is received.

2. A high school sends out failure notification letters to the parents of each student who fails one or more courses at the end of a six-weeks' period. A copy of the failure notice is kept on file, and if the student is still failing after the next six weeks, another letter is sent with an additional paragraph at the end.

3. Mr. Jackson has called to complain about the inadequate repair service he received on an appliance. The sales manager writes a letter of response to Mr. Jackson, with a copy to the service department. Six weeks later, Mr. Jackson responds and writes that the problem is now corrected.

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ACTIVITY 2 (Continued)

Project 2 (Continued)

STUDENT NAME: ____

CASE NO: __________

INPUT:

PROCESSING:

OUTPUT:

DISTRIBUTION:

STORAGE:

RETRIEVAL:

ACTIVITY 2 (Continued)

Project 3

INSTRUCTIONS: **Complete the following steps of the document cycle to demonstrate your ability in following these steps.**

STEP 1 Compose (in longhand) a letter of application to an employer who has advertised a job listing in the newspaper.

STEP 2 Load the operating system software into the RAM of the computer.

STEP 3 Load the word processing system software and a formatted data disk into the RAM of the computer.

STEP 4 Input the letter, using full-block style.

STEP 5 Format the letter, using margins of 1 1/2 inches on the left and 1 inch on the right.

STEP 6 Edit the letter, proofreading for all mistakes.

STEP 7 Save the letter.

STEP 8 Print two copies of the letter.

STEP 9 Return the letter to your teacher.

STEP 10 Print out your directory.

STEP 11 Exit the word processing system.

ACTIVITY 2 (Continued)

Project 4

INSTRUCTIONS: **Complete the following steps of the document cycle to demonstrate your ability in following these steps.**

STEP 1	Load the operating system software into the RAM of the computer.
STEP 2	Load the word processing software and your data disk (with your file for Project 3) into the RAM of the computer.
STEP 3	Load the letter completed in Project 3.
STEP 4	Change the format of the letter to a semi-block letter, following the instructions from your teacher.
STEP 5	Change the left margin to 1 inch.
STEP 6	Edit the letter, proofreading for all mistakes.
STEP 7	Load the spelling verification package, and request the computer to check the spelling of text in this document.
STEP 8	Save the letter.
STEP 9	Print one copy of the letter.
STEP 10	Return the copy of the letter to your teacher.
STEP 11	Print your directory.
STEP 12	Exit the word processing system.

ACTIVITY 3: PRODUCTION FEATURES OF WORD PROCESSING SOFTWARE

INSTRUCTIONS: **Find descriptions of word processing programs in magazines or brochures, and classify the special features listed into categories, such as page layout, writing aids, text transport, and calculating. Prepare a presentation for the class.**

ACTIVITY 4: SEARCH-AND-REPLACE FUNCTIONS

Project 1

INSTRUCTIONS: **Describe the use of the "search-and-replace" functions available on your specific computer and program.**

Project 2

INSTRUCTIONS: **Using the document from Activity 2, Project 3, utilize the search-and-replace functions according to the instructions provided by your teacher.**

ACTIVITY 5: REVISING, SPELL CHECKING, AND PRODUCING A MAILABLE DOCUMENT

Project 1

INSTRUCTIONS: **Write the command for your word processing program which will cause the equipment to complete the following operations.**

1. Load the operating system. ____________________
2. Load the information (word) processing program. ____________________
3. Open a new document. ____________________
4. Retrieve an existing document. ____________________
5. Display help. ____________________
6. Get out of trouble. ____________________
7. Move around the document. ____________________

To move cursor:

8. One character left. ____________________
9. One character right. ____________________
10. One line up. ____________________
11. One line down. ____________________
12. One word left. ____________________
13. One word right. ____________________
14. To the beginning of line. ____________________
15. To end of line. ____________________
16. To top of document. ____________________
17. To end of document. ____________________
18. To top of screen. ____________________
19. To bottom of screen. ____________________

ACTIVITY 5 (Continued)

Project 1 (Continued)

20. To scroll screen up. ____________________
21. To scroll screen down. ____________________
22. To scroll screen right. ____________________
23. To scroll screen left. ____________________
24. To next page. ____________________
25. To previous page. ____________________
26. To specific page. ____________________
27. To next tab stop. ____________________
28. To previous tab stop. ____________________
29. Typeover and insert. ____________________
30. Enter text. ____________________
31. Delete. ____________________
32. Save files. ____________________
33 Print. ____________________
34. Stop the printer. ____________________
35. Print to a disk. ____________________
36. Clear the screen and memory. ____________________
37. Quit the program. ____________________

ACTIVITY 5 (Continued)

Project 2

INSTRUCTIONS: **Write the command which will cause your information processing software and computer system to execute the following formatting.**

1. Reformat paragraphs (may be automatic). ____________________
2. Set text tab stops. ____________________
3. Set decimal tab stops. ____________________
4. Delete tab stops. ____________________
5. Use search. ____________________
6. Use replace. ____________________
7. Display hidden characters. ____________________
8. Select a block of text. ____________________
9. Copy a selected block. ____________________
10. Move a selected block. ____________________
11. Delete a selected block. ____________________
12. Change the left margin. ____________________
13. Change the right margin. ____________________
14. Change the top margin. ____________________
15. Change the bottom margin. ____________________
16. Center text between the left and right margin. ____________________
17. Center text between the top and bottom margin. ____________________
18. Justify text. ____________________
19. Change the line spacing for the entire document. ____________________
20. Indent paragraphs. ____________________
21. Boldface characters. ____________________
22. Underline characters. ____________________
23. Control page breaks. ____________________
24. Change the number of lines per page. ____________________
25. Invoke the spell checker. ____________________

ACTIVITY 5 (Continued)

Project 3

INSTRUCTIONS: **Draw the following format screen symbols, and list the keystrokes needed to obtain them.**

	SYMBOL SHOWN ON SCREEN	KEYSTROKES
Center		
Decimal tab		
Indent		
Required page break		
Required space		
Return		
Space character		
Subscript		
Tab		
Set left margin		
Set right margin		
Set top margin		
Page length		
Page width		
Font name and size		
Pitch		
Line space		
Justify		
Italicize		
Bold		

ACTIVITY 5 (Continued)

Project 4

INSTRUCTIONS: **Key in a document provided by your teacher. Use the information you gathered in Projects 1-3 to make the modifications your teacher indicates.**

ACTIVITY 6: MAKING FORMAT CHANGES

Project 1

INSTRUCTIONS: **Describe the editing procedures specific to your word processing program and computer system.**

Inserting text

Deleting text

Formatting paragraphs

Deleting formatting

Selecting a block of text

Moving text

Copying text

Project 2

INSTRUCTIONS: **Type the documents provided by your teacher. Make modifications according to your teacher's instructions, using each of the procedures listed in Project 1.**

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ACTIVITY 7: WORD PROCESSING SOFTWARE FUNCTIONS

Project 1

INSTRUCTIONS: Outline and describe the functions of word processing software.

A. Help

1.

2.

3.

B. Formatting

1.

2.

3.

4.

C. Entering and editing

1.

2.

3.

4.

5.

6.

7.

8.

D. Printing

1.

2.

3.

4.

5.

6.

7.

ACTIVITY 7 (Continued)

Project 2

INSTRUCTIONS: Match each of the advanced software features with its function.

ADVANCED FEATURES

A. Spilt screen
B. Macros
C. Windows
D. Style checkers
E. Math/calculator
F. Automatic file back up
G. Automatic saving
H. Column mode
I. Spell check
J. Outlines
K. Thesaurus

_______ 1. Check text for style and usage.

_______ 2. Used to find and correct misspellings.

_______ 3. Prevents losing files unintentionally when the user quits the program.

_______ 4. Used to record and then manipulate a series of recorded keystrokes.

_______ 5. Permits creating text on the screen in one column and then printing it out in two or more columns.

_______ 6. Two or more documents can be displayed on the screen at the same time.

_______ 7. Used to suggest synonyms for a selected word.

_______ 8. Capability to make calculations.

_______ 9. Allows the display for two sections of the same file or separate files on the screen at the same time.

_______ 10. The most recent version of a document is saved in the original file.

_______ 11. Helps in organization.

SECTION IV

COMMUNICATING EFFECTIVELY

ESSENTIAL ELEMENTS

75.87(d)/(m)(4)(A)(B), (5)(A)(B)(C)(D)

4. **Concepts and skills necessary for processing mail. The student shall be provided opportunities to:**

   (A) **Identify the procedures involved in processing incoming and outgoing mail; and**

   (B) **Identify the procedures involved in transmitting mail electronically.**

5. **Concepts and skills necessary for effective communications. The student shall be provided opportunities to:**

   (A) **Develop effective listening skills;**

   (B) **Identify and use proper business techniques when using the telephone;**

   (C) **Prepare effective written communications; and**

   (D) **Identify and use proper language usage skills in business.**

SUGGESTED UNIT LESSON PLAN

SECTION IV: COMMUNICATING EFFECTIVELY

UNIT 1: TRADITIONAL AND ELECTRONIC MAIL

ESSENTIAL ELEMENT: 75.87 (d)/(m)(4)(A)(B)

ALLOCATED TIME: 5-10 Hours

UNIT OBJECTIVE: Students will be able to identify the classes of mail, recognize the steps in processing incoming and outgoing mail, and identify types of electronic mail.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Identify mail handling terminology.
2. Classify the various types of mail.
3. Identify various postal services.
4. Identify procedures involved in processing incoming and outgoing mail.
5. Identify the various types of electronic mail.

FOCUS: Understanding and applying the procedures and principles associated with efficient mail handling is one of the important operations within an organization.

DOMAINS: Activities and competency tests have been designed to provide learning experiences utilizing the cognitive, psychomotor, or affective domains. Activities and competency tests are coded on the Activity and Competency Test Matrices.

BASIC SKILLS: Activities and competency tests have been designed to reinforce the basic skills of reading, writing, and/or mathematics. Activities and competency tests have been coded on the Activity and Competency Test Matrices.

CONTENT OUTLINE

I. Classification of mail and types of postal services

A. Classification of mail

B. Types of postal services

II. Incoming and outgoing mail

A. Processing incoming mail

B. Processing outgoing mail

III. Electronic mail

A. Advantages and disadvantages of using electronic mail

B. Forms of electronic mail

C. Bulletin boards

D. Facsimile

SUGGESTED TEACHER ACTIVITIES

General Teacher Preparation

1. Preview unit.
2. Review unit objective.
3. Make instructional analysis.
4. Assess student learning needs.
5. Decide on lesson domain: cognitive, psychomotor, or affective domain.
6. Select instructional materials based on instructional analysis and student learning needs.
7. Select instructional strategies based on lesson content and student learning needs.
8. Prepare lesson plans from the unit lesson.
9. Prepare additional instructional material.
10. Reserve necessary media and equipment.

Teacher Presentation

1. Present student objective.
2. Establish rapport with students.
3. Review lesson objectives with students.
4. Relate lesson to prior or future learning.
5. When appropriate, encourage student interaction through question, discussions, or some other strategy.
6. Emphasize the value/importance of the unit or activity.
7. Allow time for closure of a lesson.

Reteach Activities

1. Identify area(s) of weakness from results of evaluation.
2. Select unit activities not previously used.
3. Use additional resources and/or create materials based on student learning needs.
4. Use a different teaching strategy in reteaching.
5. Retest.

Specific Teaching Suggestions

1. Visit your local post office and have the students observe how the mail is sorted and handled. Prepare students for the visit by having them suggest questions to ask. Then, let them volunteer to ask the questions of their choice, or assign a specific question for each student to ask. A good time to go is right after Thanksgiving because the volume of mail is up.
2. Assemble all the supplies needed for processing mail. Demonstrate the steps involved in processing mail.
3. Have the students bring a variety of types of mail. Reseal the envelopes, and have students use them as a sorting project.
4. Use the Mail Procedures Module and slide tape unit prepared by the Educational Development and Training Center at East Texas State University.
5. Have students call or write electronic mail services to inquire about their features, costs, and benefits.
6. Provide students with current magazines and/or arrange access to the school library for research.
7. Collect pictures of fax machines. Make a visit to a fax location.
8. Make arrangements with school district, local PTA, Chamber of Commerce, or business to do a mass mail out.
9. Demonstate procedures for doing mass mail out efficiently.
10. Demonstrate a proper procedure for inserting letters into various size envelopes.
11. Have students bring an example of each classification of mail from home or keep a box of examples for them to pick from.

Specific Activities and Test Instructions

ACTIVITIES

Activity 2

Project 4 Provide students with one large envelope and one small envelope or have students bring them from home. Review the folding instructions for them. Furnish a window envelope. Have them write their name on three pieces of paper and properly fold and insert a sheet for each envelope. Remind them that it really looks sloppy when there are extra, unnecessary folds.

Project 5	Make sure the students know the last four digits of their ZIP Code.
Activity 5	Prepare a bulletin board with an example of each special mail service for students to list on the activity sheet.

COMPETENCY TEST

Part II	Provide 10 samples of various classifications of mail for the students to identify.
Part III	
Project 1	Prepare mailing supplies and sample mail for students to organize.
Project 2	Provide students with copies of three letters, a #6 envelope and a #10 envelope. Or, students may bring their own envelopes and supply their own paper. In this case, have the students write their name on each of the sheets of paper to use for sample letters.
Project 3	Provide sample letters with parts missing (signature, enclosure, inside address, special notations) for students to check.

ACTIVITY MATRIX

Activities	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
1	X			X		
2	X				X	
3	X				X	
4 Project 1	X				X	
Project 2	X				X	
Project 3	X					
Project 4	X	X		X		
Project 5	X				X	
5 Project 1	X				X	
Project 2	X				X	

COMPETENCY TEST MATRIX

Parts	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
I	X			X		
II	X				X	
III	X				X	
IV Project 1	X	X		X	X	
Project 2	X				X	
Project 3	X	X			X	
Project 4	X	X			X	
V Project 1	X			X		
Project 2	X				X	

HANDOUT 1: STATE ABBREVIATIONS

ALABAMA	AL	MONTANA	MT
ALASKA	AK	NEBRASKA	NE
ARIZONA	AZ	NEVADA	NV
ARKANSAS	AR	NEW HAMPSHIRE	NH
CALIFORNIA	CA	NEW JERSEY	NJ
CANAL ZONE	CZ	NEW MEXICO	NM
COLORADO	CO	NEW YORK	NY
CONNECTICUT	CT	NORTH CAROLINA	NC
DELAWARE	DE	NORTH DAKOTA	ND
DISTRICT OF COLUMBIA	DC	OHIO	OH
FLORIDA	FL	OKLAHOMA	OK
GEORGIA	GA	OREGON	OR
HAWAII	HI	PENNSYLVANIA	PA
IDAHO	ID	PUERTO RICO	PR
ILLINOIS	IL	RHODE ISLAND	RI
INDIANA	IN	SOUTH CAROLINA	SC
IOWA	IA	SOUTH DAKOTA	SD
KANSAS	KS	TENNESSEE	TN
KENTUCKY	KY	TEXAS	TX
LOUISIANA	LA	UTAH	UT
MAINE	ME	VERMONT	VT
MARYLAND	MD	VIRGINIA	VA
MASSACHUSETTS	MA	VIRGIN ISLANDS	VI
MICHIGAN	MI	WASHINGTON	WA
MINNESOTA	MN	WEST VIRGINIA	WV
MISSISSIPPI	MS	WISCONSIN	WI
MISSOURI	MO	WYOMING	WY

HANDOUT 2: LISTENING

LESSON 1: ATTENTIVE LISTENING

- Keep distractions to a minimum.
- Communicate positive body language.
- Maintain good eye contact.

LESSON 2: ACTIVE LISTENING

- Acknowledge and value the feeling behind the message.
- Verify the content of the message.
- Ask honest, direct, open, and specific questions.

LESSON 3: COURAGEOUS LISTENING

- Avoid threatening questions and statements.
- Risk being persuaded.
- Delay evaluation.
- Evaluate the message, not the sender.

HANDOUT 3: LISTENING

GOOD LISTENER		POOR LISTENER
	Habits	
Good eye contact		Poor eye habits
Comments on my statements		Doesn't pay attention
Asks relevant questions		Interrupts me
Remembers what I say		Doesn't remember what I've said
	Feelings	
Important		Unimportant
Confident		Lacking confidence
Trusting		Nontrusting
Happy		Frustrated
	Actions	
Does things asked		Doesn't do as asked
Goes "the extra mile"		Sabotages
Asks questions		Hides information
Shares new developments		Avoids contact

COMPETENCY TEST

PART I: TERMINOLOGY

INSRUCTIONS: **Match the terms to their definitions by placing the correct letter in the space at the left.**

A. Modem
B. Postage meter
C. First-class
D. Domestic
E. Mailgram
F. Return receipt
G. Facsimile machine
H. Second-class
I. Annotate
J. Priority
K. Courier/messenger service
L. Certified mail
M. Bulletin board
N. E-mail
O. ZIP Code

________ 1. Mail class only available to publishers and registered new agents.

________ 2. Machine that prints postage fees on gummed strips that are used as stamps.

________ 3. First-class mail weighing over 12 ounces.

________ 4. Special mail service for first-class mail which provides receipts for the sender proving that the item was mailed and delivered; no insurance coverage provided.

________ 5. A sheet of paper from the postal service at the time of mailing to prove that an item was mailed.

________ 6. Mail delivered and sent within the United States.

________ 7. To provide explanatory marks or notes in the margins of correspondence in order to assist the employer.

________ 8. A personal delivery service that can guarantee overnight delivery of documents.

________ 9. The five- or nine-digit code used by the postal service to speed up the processing of mail.

________ 10. A device that converts digital signals to analog signals, and analog back to digital so that computers can communicate over telephone lines.

_________ 11. An electronic messaging system service for common or special interest groups.

_________ 12. A device that electronically scans a printed page and converts the images into analog signals sent to another machine.

_________ 13. The transmission and storage of messages from the sender to the receiver.

_________ 14. Message sent by Western Union to the local post office and delivered with the regular mail.

PART II: CLASSIFICATION OF MAIL

INSTRUCTIONS: Using the samples provided by the teacher, determine the classification of mail from the list below.

A. First-class
B. First-class zone-rate
C. Second-class
D. Third-class
E. Fourth-class

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

PART III: ADDITIONAL POSTAL SERVICES

INSTRUCTIONS: Describe any three of the following special services.

1. Express mail
2. Special delivery
3. Registered mail
4. Insured mail
5. Certified mail
6. COD mail
7. Money orders
8. Return receipt
9. Special handling

PART IV: PROCESSING INCOMING MAIL AND HANDLING OUTGOING MAIL

Project 1

INSTRUCTIONS: **Prepare to process mail.**

1. Gather proper mail processing supplies.
2. Follow the steps in processing mail.
3. Organize the mail provided by your teacher according to its importance.

Project 2

INSTRUCTIONS: **Using the following ZIP Code, tell what each number in the code signifies.**

72355-1728

7

23

55

17

28

PART IV (Continued)

Project 3

INSTRUCTIONS: **Properly fold the three letters provided by your teacher. Fold one to fit a #6 envelope, one to fit a #10 envelope, and one to fit a window envelope.**

Project 4

INSTRUCTIONS: **Check the letters provided by the teacher to see what is missing.**

Letter 1:

Letter 2:

Letter 3:

Letter 4:

PART V: TYPES OF ELECTRONIC MAIL

Project 1

INSTRUCTIONS: **Match a type of electronic mail with its description.**

	DESCRIPTION		**TYPE**
_____ 1.	Simplifies the composition and editing of draft messages.	A.	Communicating word processors
_____ 2.	Uses teleprinters and hardcopy output.	B.	Facsimile
_____ 3.	The oldest type of electronic mail.	C.	Telex/TWX
_____ 4.	Allows an original document to be reproduced at remote locations.	D.	Mailgrams
_____ 5.	Messages from Western Union that are delivered with the regular mail.	E.	Telegram

Project 2

INSTRUCTIONS: **List three uses for bulletin board systems.**

1.

2.

3.

ANSWERS TO ACTIVITIES

Activity 1

```
 RETURNRECEIPT
    S
 MODEM  B     C  D
    R   U     E  O
    G   L F   R  M
    R   L A   T  E
 ANNOTATE C   I  S
T   U   T S   F  T
H   P   I I   I  I M
I   S   N M   E  C A
R       B I   D  M I
D       O L   M  A L
CERTIFICATEOFMAILING
L       R M   I  L R
A INSUREDMAIL L    A
S         C        M
S         H
  INTERNATIONALMAIL
          N
MAILREGISTER
```

Activity 2

1. First-class includes: letters, post cards, bills, checks
2. Second-class includes: newspapers, periodicals, magazines
3. Third-class includes: advertisements, merchandise, books, catalogs, other printed material
4. Fourth-class includes: packages

Activity 3 Evaluated to the satisfaction of the instructor.

Activity 4

Project 1

1. Letter opener
2. Paperclips
3. Tape
4. Date stamp and ink pad
5. Pens or pencils
6. Mail register
7. Routing slips

Project 2

1. Gather supplies
2. Classifying mail
3. Opening mail
4. Removing and inspecting contents
5. Date-time stamping
6. Recording special mail in a mail register
7. Scanning and annotating mail
8. Secure and attach related materials
9. Make notations
10. Sort correspondence for distribution

Project 3

1. A signature should always be present. If not, return mail to the originator.

2. All enclosures should be included either behind or in front of the letter. If the enclosure is missing, bring it to the attention of the person or department sending the letter.

3. The letter's inside address should agree with the address on the envelope.

4. Special notations, such as Special Delivery, should be noted on the outside of the envelope.

Project 4

Evaluated to the satisfaction of the instructor.

Project 5

First digit designates a particular geographic location.

Next two digits represent the sectional center or large city in the area.

Last two digits represent the local post office destination.

Extension:

First two numbers indicate a certain sector of the city.

Last two numbers indicate the delivery segment--certain streets, floors, or departments.

Activity 5

Project 1 **Any five of the following advantages of using E-mail:**

1. Messages can be delivered at a predictable time.
2. Cuts communication time from days to minutes.
3. Can permanently store messages and then easily recall them.
4. Each member has a "mailbox" in which others may leave messages that will remain until the owner reads them and chooses to erase them.
5. This is valuable for people who travel because they can access their E-mail from any terminal.
6. Messages can be stored and forwarded to a computer at another location.
7. The message, as you type it, can be read immediately or as soon as your addressee is on-line.

Disadvantages of using E-mail:

1. In the past, if your addressee did not have a computer or if they did not subscribe to the same service you did, you could not use E-mail. Now, however, E-mail can be sent to anyone with a postal address. Therefore, while it may be sent electronically, it is delivered as a mailgram or an MCI laser-printed message.
2. Digital code cannot be read by a computer; therefore, it is received as a paper image. If corrections are needed, it is necessary to rekey the received message, which is expensive and time-consuming. The sender must know the telephone number of the receiving fax machine.

Project 2 **Any three of the following uses:**

1. Message exchange center--read and leave messages, and send or receive files.
2. Leave a message for the SYOP and for other users.
3. Remote communications between different offices and while traveling.
4. Distribute software and support to dispersed PC users.
5. Billboards.

6. Central storehouse for a project teams' information.
7. Log--to track the history of a project.
8. Security features--passwords, encryption, or multiple security levels.

COMPETENCY TEST ANSWERS

Part I

1. H
2. B
3. J
4. L
5. F
6. D
7. I
8. K
9. O
10. A
11. M
12. G
13. N
14. E

Part II Evaluated to the satisfaction of the instructor.

Part III Any three of the following:

1.	Express mail	Next-day, custom-designed, international and same-day are all examples of this special service.
2.	Special delivery	Delivered by a messenger.
3.	Registered mail	Insurance protection and receipt.
4.	Insured mail	Can only be insured for up to $200.
5.	Certified mail	Provides sender with a mailing receipt and a record of delivery at the addressee's post office.
6.	COD mail	Used for merchandise that is sent third-class, fourth-class, or air parcel post.
7.	Money orders	Available on insured mail of more than $15 value, and on certified and registered mail.
8.	Return receipt	Available on insured mail of more than $15 value, and on certified and registered mail; identifies the article by number, shows who signed for it, and the date it was delivered.
9.	Special handling	Used when the sender wishes to have a package reach its destination more quickly, but not as quickly as with special delivery.

Part IV

Project 1 Evaluated to the satisfaction of the instructor.

Project 2

7 First digit designates a particular geographic location.

23 Next two digits represent the sectional center or large city in the area.

55 Last two digits represent the local post office destination.

Extension:

17 First two numbers indicate a certain sector of the city.

28 Last two numbers indicate the delivery segment--certain streets, floors, or departments.

Project 3 Evaluated to the satisfaction of the instructor.

Project 4 Evaluated to the satisfaction of the instructor.

1. A signature should always be present. If not, return mail to the originator.
2. All enclosures should be included either behind or in front of the letter. If the enclosure is missing, bring it to the attention of the person or department sending the letter.
3. The letter's inside address should agree with the address on the envelope.
4. Special notations, such as Special Delivery, should be noted on the outside of the envelope.

Part V

Project 1

1. A
2. C
3. E
4. B
5. D

Project 2 Any three of the following:

1. Message exchange center--read and leave messages, and send or receive files.
2. Leave a message for the SYOP and for other users.
3. Remote communications between different offices and while traveling.
4. Distribute software and support to dispersed PC users.
5. Billboards.
6. Central storehouse for a project teams' information.
7. Log--to track the history of a project.
8. Security features--passwords, encryption, or multiple security levels.

RESOURCES

TEXT/WORKBOOKS

THE ADMINISTRATIVE SECRETARY
Gregg/McGraw-Hill

EXECUTIVE SECRETARIAL PROCEDURES
Gregg/McGraw-Hill

GENERAL OFFICE PROCEDURES
Gregg/McGraw-Hill

THE OFFICE
South-Western Publishing

OFFICE PROCEDURES
MPC Educational Publishers

OFFICE PROCEDURES FOR THE PROFESSIONAL SECRETARY
SRA

MAGAZINES

ADMINISTRATIVE MANAGEMENT

MODERN OFFICE PROCEDURES

THE OFFICE

THE SECRETARY

MEDIA

MAIL PROCESSING: THE INS AND OUTS
Filmstrip
Career Aids, Inc.

HANDLING INCOMING AND OUTGOING MAIL
Slide/tape presentation
Educational Development and Training Center
East Texas State University

INFORMATION FOCUS
Random House/McGraw-Hill

COMPETENCY CHECKLIST

ESSENTIAL ELEMENTS: 75.87 (d)/(m)(4)(A)(B)

The student shall be provided opportunities to identify the procedures involved in processing incoming and outgoing mail and in transmitting mail electronically.

OBJECTIVE:	**The student will be able to identify the classes of mail, recognize the steps in processing incoming and outgoing mail, and identify types of electronic mail**	MASTERY	NON-MASTERY
1.	Identify mail handling terminology.		
2.	Classify the various types of mail.		
3.	Identify various postal services.		
4.	Identify procedures involved in processing incoming and outgoing mail.		
5.	Identify the various types of electronic mail.		

STUDENT NAME______________________________________

SUGGESTED UNIT LESSON PLAN

SECTION IV: COMMUNICATING EFFECTIVELY

UNIT II: TELEPHONE SKILLS

ESSENTIAL ELEMENTS 75.87 (d)/(m)(5)(A)(B)

ALLOCATED TIME: 5-10 Hours

UNIT OBJECTIVE: Students will be able to demonstrate effective listening skills and to use proper business techniques when using the telephone.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Properly define telephone terminology.
2. Demonstrate characteristics of good listening skills.
3. Demonstrate positive techniques of handling incoming telephone calls.
4. Demonstrate positive techniques of placing outgoing telephone calls.
5. Compare the various parts of the telephone directory.
6. Demonstrate the ability to take messages.

FOCUS: The telephone is a vital link between business and the public. Companies expect proper telephone skills of the beginning worker.

DOMAINS: Activities and competency tests have been designed to provide learning experiences utilizing the cognitive, psychomotor, or affective domains. Activities and competency tests are coded on the Activity and Competency Test Matrices.

BASIC SKILLS: Activities and competency tests have been designed to reinforce the basic skills of reading, writing, and/or mathematics. Activities and competency tests have been coded on the Activity and Competency Test Matrices.

CONTENT OUTLINE

I. Listening skills
   - A. Hearing and listening
   - B. Good listening techniques

II. Telephone techniques
   - A. Projecting a good telephone image
   - B. Creating a good telephone image
   - C. Developing a helpful telephone voice
   - D. Phonetic alphabet

III. Handling incoming telephone calls
   - A. Establishing good office organization
   - B. Answering procedures
   - C. Taking messages

IV. Placing outgoing telephone calls
   - A. Planning calls
   - B. Placing calls

V. Using the telephone directory and directory assistance
   - A. Purposes of directories
   - B. Parts of the telephone directory
   - C. Personal directory
   - D. Directory assistance

VI. Logging long-distance telephone calls
   - A. Reasons for keeping
   - B. Information included
   - C. Using a long distance file card

SUGGESTED TEACHER ACTIVITIES

General Teacher Preparation

1. Preview unit.
2. Review unit objectives.
3. Make instructional analysis.
4. Assess student learning needs.
5. Decide on lesson domain: cognitive, psychomotor, or affective domain.
6. Select instructional materials based on instructional analysis and student learning needs..
7. Select instructional strategies based on lesson content and student learning needs.
8. Prepare lesson plans from the unit lesson.
9. Prepare additional instructional material.
10. Reserve necessary media and equipment.

Teacher Presentation

1. Present student objectives.
2. Establish rapport with students.
3. Review lesson objectives with students.
4. Relate lesson to prior or future learning.
5. When appropriate, encourage student interaction through questioning, discussions, or some other strategy.
6. Emphasize the value/importance of the unit or activity.
7. Allow time for closure of a lesson.

Reteach Activities

1. Identify area(s) of weakness from results of evaluation.
2. Select unit activities not previously used.
3. Use additional resources and/or create materials based on student learning needs.
4. Use a different teaching strategy in reteaching.
5. Retest.

Specific Teaching Suggestions

1. Prepare bulletin boards with pictures of various types of telephone equipment, a comparison of telephone techniques for incoming and outgoing calls, supplies, etc.
2. Make arrangements to use the teletrainer.
3. Secure several dictation machines or tape recorders for use with the units.
4. Secure video, slides, tape, or film about telephoning techniques.
5. Check with your students to see if any parents have cellular phones or paging equipment. Invite parents who have cellular phones/pagers to visit the class to demonstrate and explain the equipment.
6. Provide students with current periodicals and/or access to the school library for research.
7. Have someone from the local telephone company discuss telephone techniques and demonstrate various types of telephone equipment for the class.
8. Discuss impact of computers on telephone equipment.
9. Have an educational representative from the telephone company speak to the class about telephone answering skills and procedures. Have students take notes and write a brief paper summarizing the information.
10. Have students role play a variety of incoming telephone calls and write down appropriate messages.
11. Role play incorrect way to place outgoing calls. Let class members identify errors.
12. Role play incorrect way to take incoming calls. Let class members identify errors.

Specific Activities and Test Instructions

ACTIVITIES

Activity 2

Project 2 Pick a two- to three-minute short essay with details.

Project 3 This could be a recorded segment of a radio show and used for the whole class.

Activity 4

Project 1 Have several tape recorders or dictation units available with recording media for students to use. This may be done over a few days so that a group of students can use the equipment each day. Provide students with a copy of the phonetic alphabet handout. This project may be done with partners and using a list of names familiar to the students.

Project 2 Compile a list of several tongue twisters for students to practice correct pronunciation.

Activity 5

Project 4 Discuss with students the proper techniques for taking messages. Review what information should be included on message forms. Provide students with message forms.

Activity 6

Project 1 Provide students with time zone maps and/or telephone books with time zones in them. Also, discuss time zones around the world.

Projects 2-4 Secure telephone books from the telephone company, or have your students bring telephone books from home. It would also be interesting to bring telephone books from various parts of the United States and from both large and small cities for comparison.

COMPETENCY TEST

Part II The following is the story that should be read to the students:

MONKEY STORY

I want to tell you what happened to me on the last day of my vacation last summer. I was in New York City at a big, exclusive hotel. My room was on the ninth floor. I was all packed, and I called for a bellboy. I waited for thirty minutes, but nobody came to help me with my baggage, so I just gathered up all three bags, my hat box, and my briefcase and headed for the elevator. I waited for what seemed like hours, but the elevator did not come, so I finally trudged down nine flights of stairs with all that luggage.

I finally reached the hotel lobby where I checked out and paid my bill. Then I gathered up all the luggage once more and started for the door. It was one of those revolving doors--you know--and just as I stepped into it, I saw the most amazing sight! Sitting on a sofa in that hotel lobby was a chimpanzee all dressed up in neon-blue hotpants with matching purse and shoes and wearing a blonde wig! I was so astonished that I lost my composure and got caught in that revolving door, scratching the lower left corner of my briefcase, which was a gift from my mother-in-law. Well, when I finally got untangled, I went outside and started to get into a taxi. But just as I reached for the door handle, that dumb taxi driver pulled away, causing me to fall off the curb and get a huge run in my brand new nude-color stockings. Was I mad! However, I finally did get a cab, and we rushed for the airport. I got there just in time to see my flight pull away from the terminal!! What a way to end a vacation!!

Part V

Project 1 Handout 2 should be given to the students during this project.

ACTIVITY MATRIX

Activities	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
1	X			X		
2 Project 1	X	X				
Project 2	X					
Project 3	X	X	X		X	
3	X			X	X	
4 Project 1	X	X		X		
Project 2	X	X		X		
5 Project 1	X				X	
Project 2	X				X	
Project 3	X			X	X	
Project 4	X			X	X	
6 Project 1	X			X	X	X
Project 2	X			X		
Project 3	X			X		
Project 4	X			X	X	
7	X			X	X	

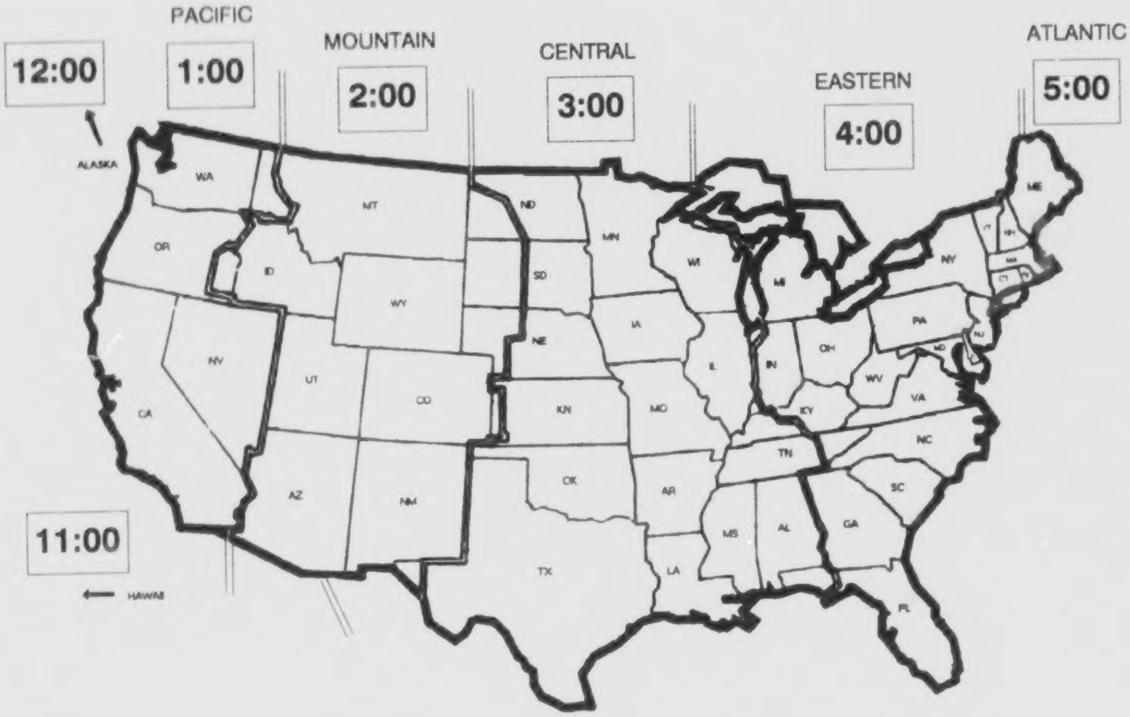
COMPETENCY TEST MATRIX

Parts	**Domains**			**Basic Skills**		
	Cognitive	**Psycho-motor**	**Affective**	**Reading**	**Writing**	**Math**
I	X			X		
II	X				X	
III Project 1	X			X		
Project 2	X				X	
IV	X			X	X	
V Project 1	X			X	X	
Project 2	X			X		
VI	X				X	

HANDOUT 1: PHONETIC ALPHABET

Alice for **A**
Bertha for **B**
Charles for **C**
David for **D**
Edward for **E**
Frank for **F**
George for **G**
Henry for **H**
Ida for **I**
James for **J**
Kate for **K**
Louis for **L**
Mary for **M**
Nellie for **N**
Oliver for **O**
Peter for **P**
Quaker for **Q**
Robert for **R**
Samuel for **S**
Thomas for **T**
Utah for **U**
Victor for **V**
William for **W**
X-ray for **X**
Young for **Y**
Zebra for **Z**

HANDOUT 2: TIME ZONE MAP


12:00
ALASKA
PACIFIC
1:00
MOUNTAIN
2:00
CENTRAL
3:00
EASTERN
4:00
ATLANTIC
5:00
11:00
HAWAII
WA
OR
CA
NV
ID
MT
WY
UT
AZ
CO
NM
ND
SD
NE
KN
OK
TX
MN
IA
MO
AR
LA
WI
IL
MI
IN
OH
KY
TN
MS
AL
GA
FL
SC
NC
VA
WV
PA
NY
NJ
MD
ME
VT
NH
MA
CT
RI

COMPETENCY TEST

PART I: TERMINOLOGY

INSTRUCTIONS: Fill in the blank with the appropriate term or terms.

____________________ 1. Can talk to many people at different locations.

____________________ 2. Allows one call to be put on hold while receiving an incoming call.

____________________ 3. Permits station-to-station, long-distance calls to be made to an organization without charge to the caller.

____________________ 4. Similar to using a charge card.

____________________ 5. Subscriber can make calls to any telephone in the selected service area.

____________________ 6. Calls cost twice as much as station-to-station calls, but there are no charges if the party is not there.

____________________ 7. Calls charged to the person receiving the call.

____________________ 8. Can place an unlimited number of calls for a single monthly charge.

____________________ 9. Station-to-station call.

____________________ 10. Allows a company to receive a call from anyone in the service area.

PART II: LISTENING SKILLS

INSTRUCTIONS: Listen to the short story read by your teacher. When finished, write down everything you remember.

PART III: TELEPHONE TECHNIQUES

Project 1

INSTRUCTIONS: **Answer the following statements True or False by placing a T for True or an F for False in the space at the left.**

__________ 1. It is important to develop a helpful telephone voice.

__________ 2. It is necessary to talk directly into the receiver.

__________ 3. If possible, return calls promptly.

__________ 4. What you say and how you say it forms your image over the phone.

__________ 5. When talking over the phone, use slang instead of businesslike phrases.

__________ 6. Your voice and manner of speaking make no difference if the caller cannot see you.

__________ 7. Avoid using expressions which may confuse the caller.

__________ 8. The tone of your voice should always remain the same.

__________ 9. Do not take time to take notes when taking a message on the phone.

__________ 10. When using the phone, be tactful.

__________ 11. When talking on the phone, use a person's name as little as possible.

__________ 12. When talking on the phone, speak slower than normal.

__________ 13. When receiving calls, wait and answer the phone on the third or fourth ring.

__________ 14. When receiving calls, identify yourself.

__________ 15. When ending the call, the caller should hang up first.

__________ 16. Always give the caller the option of waiting or having you return the call.

__________ 17. Keep a pad and pencil handy at all times for taking messages.

__________ 18. When placing a call, do not pay attention to differences in time zones for long distance.

__________ 19. When placing a call, identify yourself immediately, and state the purpose of your call.

__________ 20. Try to place calls during regularly scheduled lunch hours.

PART III (continued)

Project 2

INSTRUCTIONS: **Using the phonetic alphabet handout, spell out on paper the following names as if you were repeating them over the telephone.**

1. Sandra Johnson

2. David Burton

3. Chris Lewis

4. Marsha Fields

5. Harry Watson

PART IV: TAKING TELEPHONE MESSAGES

INSTRUCTIONS: **Take messages from the taped conversations provided by your teacher. Make sure you have all of the information and that your message form is complete.**

Message

For

From

Date Time

Phone No.

Telephoned		Please call	
Called to see you		Will call again	

Message:

Call taken by

Message

For

From

Date Time

Phone No.

Telephoned		Please call	
Called to see you		Will call again	

Message:

Call taken by

Message

For

From

Date Time

Phone No.

Telephoned		Please call	
Called to see you		Will call again	

Message:

Call taken by

Message

For

From

Date Time

Phone No.

Telephoned		Please call	
Called to see you		Will call again	

Message:

Call taken by

PART V: USING THE TELEPHONE DIRECTORY AND DIRECTORY ASSISTANCE

Project 1

INSTRUCTIONS: **Use the time zone map provided by your teacher to determine the time in the following locations. You are in Chicago, and it is 3 p.m.**

__________ 1. New York, New York
__________ 2. Washington, D.C.
__________ 3. Little Rock, Arkansas
__________ 4. Fresno, California
__________ 5. Denver, Colorado

Project 2

INSTRUCTIONS: **Match the parts of the telephone directory with the types of entries.**

PARTS

A. Introductory pages
B. Classified/Yellow pages
C. Alphabetic/White pages

ENTRIES

_______ 1. Contain an alphabetic listing of every business telephone subscriber within each subject category or classification.

_______ 2. Display an area code/time zone map and a brief listing of area codes for major cities.

_______ 3. Show emergency numbers.

_______ 4. Contain an alphabetic listing of all persons and businesses that are telephone subscribers in a specific service area.

_______ 5. Provide dialing instructions.

_______ 6. Furnish information on services and equipment.

_______ 7. Have an index at the front of the directory which assists in locating the proper heading.

_______ 8. Use name guides printed in large type at the top of each directory page, giving the first and last name listed on the page.

Project 2 (Continued)

_________ 9. List physicians' names.

_________ 10. Include instructions for placing long distance calls.

PART VI: TECHNIQUES FOR PLACING OUTGOING TELEPHONE CALLS

INSTRUCTIONS: **Using the telephone log below, record the following calls. All calls were made on the current date from the Central time zone.**

1. Barry Turner placed a call to Miami, Florida, at 1:30 p.m. concerning the conference schedule. (214) 579-8365.
2. A call was made to Jerry Phillips in Vicksburg, Mississippi, at 10 a.m. to place an order. The call ended at 10:17 a.m.
3. What information was omitted from Call No. 1?
4. What information was omitted from Call No. 2?

DATE	NAME OF PERSON CALLED	PHONE NO.	INITIALS

ANSWERS TO ACTIVITIES

Activity 1

```
TELECOMMUNICATIONS
E                T
L            T   A
E   C TELETYPEWRITER
C   R        L   I
O   E   SPEAKERPHONE
N   D     M  X   N
F   I  P  A      T
E   T  A  I  K   O
R   C  G  L  E   S
E   A  I     Y   T
N PERSONTOPERSONCALL
C   D  G     Y   T
E   C  D     S   I
    A  E     T   O
    L  V     E   N
 CALLWAITING M   C
       C         A
    DIRECTDIALCALLS
                 L
```

Activity 2

Projects 1-3 Evaluated to the satisfaction of the instructor.

Activity 3

1. Businesslike
2. Acknowledge
3. Listener
4. Apologize
5. Smile
6. Impression
7. Name
8. Waiting
9. Expressions
10. Receiver
11. Normal
12. Tone
13. Clearly
14. Helpful

Activity 4

Projects 1-2 Evaluated to the satisfaction of the instructor.

Activity 5

Project 1

1. Keep a message pad readily available.
2. Be sure to include all the necessary information.
3. Read the message back to the caller to make sure the message is correct.
4. Record all telephone calls, even if the call need not be returned.
5. Leave the messages in a specified place on your employer's desk.

Project 2

1. Time and date of the call
2. Complete name of caller and the company represented
3. Telephone number of the caller, including the area code and extension
4. What action to take
5. Important details of the message
6. Your initials or signature

Project 3

1st Call:

1. Ms. Jackson's office, (Name of student) speaking.

2. The conference fee is $100 and covers all conference materials and a luncheon. The registration deadline is September 6.

3. Thank you for calling, Mr. Jones.

2nd Call:

1. Ms. Jackson's office, (Name of student) speaking.

2. Ms. Jackson is out of town and will not be back until noon tomorrow. May I help you?

3. I'm sorry. I don't have that information. May I take a number and have Ms. Jackson return your call tomorrow?

4. Yes, Mrs. Bailey, I have that information. Will you hold the line while I get the information, or may I call you back?

5. Thank you for waiting, Mrs. Bailey.

6. Thank you for calling, Mrs. Bailey.

Project 4 Evaluated to the satisfaction of the instructor.

Message

For Sally Watson
From Ted Langley
Date (Current date) Time 11:15 a.m.
Phone No.

Telephoned	✓	Please call	
Called to see you		Will call again	✓

Message: Mr. Langley is from VIP Videos. He called regarding a lost shipment.

Call taken by (Student's Name)

Message

For James Carson
From John Smith
Date (Current date) Time 10:20 a.m.
Phone No. (214) 720-3457

Telephoned	✓	Please call	✓
Called to see you		Will call again	

Message: Mr. Smith is from Ansley, Burton, & Waller. Please return his call before 5 p.m.

Call taken by (Student's Name)

Message

For Peggy Edwards
From Michael Guzman
Date (Current date) Time 1:45 p.m.
Phone No. (214) 393-1708

Telephoned	✓	Please call	✓
Called to see you		Will call again	

Message: He will not be able to attend the 3:30 meeting. Can it be scheduled for 4:30? Leave a message with his secretary, Ann.

Call taken by (Student's Name)

Message

For Nancy Tillman
From John Looper
Date (Current date) Time 9:05 a.m.
Phone No. (214) 634-9087

Telephoned	✓	Please call	✓
Called to see you		Will call again	

Message: Mr. Looper is from Tickets, Etc. Please call back by 4:00 p.m. regarding concert tickets.

Call taken by (Student's Name)

Activity 6

Project 1

Between 5:30 and 9:00 a.m. or 10:00 a.m. and 1:45 p.m. These are their office hours in Pacific time.

Project 2 Answers may vary. Evaluated to the satisfaction of the instructor.

1. Wrecker service
2. Watches--retail
3. Video-Tapes & Discs--renting & leasing
4. Wallpaper & wallcoverings--retail
5. Windshield repair

Project 3 Answers will vary according to individual telephone directory used.

Project 4 Answers will vary according to individual telephone directory used.

Activity 7

It was their lunch hour in New York.
Name of caller, the telephone number, and the initials of the caller.

DATE	NAME OF PERSON CALLED	PHONE NO.	INITIALS
(Current)	Dave Burton	(318) 742-8729	M.J.
(Current)	Janice Dumas		

COMPETENCY TEST ANSWERS

Part I

1. Conference calls
2. Call waiting
3. Direct inward dialing
4. Credit card
5. Outward WATS
6. Person-to-person
7. Collect
8. WATS
9. One-plus
10. Inward WATS

Part II **Evaluated to the satisfaction of the instructor.**

Project 1

1.	T	11.	F
2.	T	12.	F
3.	T	13.	F
4.	T	14.	T
5.	F	15.	T
6.	F	16.	T
7.	T	17.	T
8.	F	18.	F
9.	F	19.	T
10.	T	20.	F

Project 2

1. S as in Samuel, ANDRA
J as in James, OHNSON

2. D as in David, AVID
B as in Bertha, URTON

3. C as in Charles, HRIS
L as in Louis, EWIS

4. M as in Mary, ARSHA
F as in Frank, IELDS

5. H as in Henry, ARRY
W as in William, ATSON

Part IV **Evaluated to the satisfaction of the instructor.**

Part V

Project 1

1. 4 p.m.
2. 4 p.m.
3. 3 p.m.
4. 1 p.m.
5. 2 p.m.

Project 2

1. B
2. A
3. A
4. C
5. A
6. A
7. B
8. C
9. B
10. A

Part VI

DATE	NAME OF PERSON CALLED	PHONE NO.	INITIALS
(Current)		(214) 579-8365	B.J.
(Current)	Jerry Phillips		

RESOURCES

TEXTBOOKS

APPLIED SECRETARIAL PROCEDURES
Gregg Division/McGraw-Hill Book Co

BUSINESS COMMUNICATIONS
Instructional Material Laboratory
University of Missouri-Columbia

THE BUSINESS OF COMMUNICATING
Milliken Publishing Co.

COMMUNICATIONS STUDY GUIDE UNIT 1 COMPUTER FUNDAMENTALS FOR AN INFORMATION AGE
Shelly and Cashman

THE COMPLETE HANDBOOK OF PERSONAL COMPUTER COMMUNICATIONS
St. Martin's Press

COMPUTER CONCEPTS
SRA

COMPUTER INFORMATION SYSTEMS
South-Western Publishing Co.

COMPUTERS TODAY
Gregg Division/McGraw-Hill Book Co.

EFFECTIVE HUMAN RELATIONS IN ORGANIZATIONS
Houghton-Mifflin Company

THE ELECTRONIC OFFICE
Prentice-Hall

ESSENTIAL GUIDE TO BULLETIN BOARD SYSTEMS
Meckler Publishing Corp.

GUIDE TO IBM PC COMMUNICATIONS
Borland, Osborne, and MicroPro
McGraw-Hill Publishers

HOW TO LOOK IT UP ON-LINE
St. Martin's Press

INTENSIVE OFFICE SKILLS REVIEW
South-Western Publishing Co.

INTRODUCTION TO BUSINESS TELECOMMUNICATIONS
Charles E. Merrill Publishing Co.

INTRODUCTION TO COMPUTERS AND INFORMATION PROCESSING
Reston Publishing Co., Inc.

INTRODUCTION TO TELECOMMUNICATIONS
Educational Development &
Training Center
East Texas State University

LISTENING SKILLS
Milliken Publishing Co.

LOCAL AREA NETWORKS
Borlan, Osborne, and MicroPro
McGraw-Hill Publishers

NATIONAL DIRECTORY OF BULLETIN BOARD SYSTEMS

OFFICE AUTOMATION AMACOM

OFFICE PROCEDURES
Gregg Division/McGraw-Hill Book Co.

OFFICE SYSTEMS AND PROCEDURES
Houghton-Mifflin Company

SECRETARIAL OFFICE PROCEDURES
South-Western Publishing Co.

SOUTHWESTERN BELL AIDS TO EDUCATION PROGRAM
Southwestern Bell Telephone Co.

SPEECH FOR EFFECTIVE COMMUNICATIONS
Harcourt/Brace/Jovanovich, Publisher

TELECOMMUNICATION: CONCEPTS. DEVELOPMENT, AND MANAGEMENT
Bobbs-Merrill Educational Publishers

TELEPHONE COMMUNICATIONS
Prentice-Hall Media, Service Code H

TELEPHONE TECHNIQUES
Milady Publishing Co.

USING SPRINT
Borland, Osborne, and MicroPro
McGraw-Hill Publishers

MEDIA

BUSINESS TELEPHONE ETIQUETTE
Slide-Tape Presentation
Includes teacher's guide, student booklet and competency tests
Educational Development & Training Center
East Texas State University

COMMUNICATING ON THE JOB
Film, Cassettes, Teacher Manual
Career Aids, Inc.

ELECTRONIC MAIL
Milady Publishing Co.

LISTEN AND REAP THE REWARDS
The Balance Sheet
South-Western Publishing Co.

LISTENING--THE NEW COMPETENCY
The Balance Sheet
South-Western Publishing Co.

OFFICE COMMUNICATION
Filmstrips, trainee work plan
Prentice-Hall Media

TELEPHONE COURTESY PAYS-LISTENING UNDER PRESSURE
Video/w/facilitator's guide and posters
Career Aids

TELEPHONE DYNAMICS
Western tape

TELEPHONE TECHNIQUES
2 color filmstrips w/ cassettes
Career Aids

TELEPHONE TECHNIQUES
Student activity and competency test packets
Educational Development & Training Center
East Texas State University

TELEPHONE USE ACTIVITY PACK
J. Weston Walch
SOFTWARE

INFORMATION FOCUS
Random House School Division

NEWSROOM
Springboard

THE OTHER SIDE
Tom Snyder Productions

PRO-COM-A
Prometheus

RADIO
Scholastic Scope Magazine

WORK JUGGLER
Quark

WRITE AWAY
Peregringe Software

ON-LINE SERVICES

TELECOMMUNICATIONS SIMULATORS

THE ELECTRONIC MAILBAG
An electronic mail simulator with a complete curriculum. Multi-boot permission is granted for up to three computers.
Exsym

THE ELECTRONIC VILLAGE
A site-licensed simulation and tutorial introduction to telecommunications and bulletin board systems. Also comes with materials in telecommunications ethics.
Exsym

GBBS "PRO"
Apple-based bulletin board software simulation.
Micro Data Products

INFORMATION CONNECTION
A package which simulates an on-line information search using a limited version of the Groiler-on-line encyclopedia currently available on CompuServe.
Groiler Electronic Publishing

WINDOW ON TELECOMMUNICATIONS
A unique, site-licensed telecommunication vocabulary simulator
Exsym

COMPETENCY CHECKLIST

ESSENTIAL ELEMENTS: 75.87 (d)/(m)(5)(A)(B)

The student shall be provided opportunities to develop effective listening skills and to identify and use proper business techniques when using the telephone.

OBJECTIVE:	Students will be able to demonstrate effective listening skills and proper business techniques when using the telephone.	MASTERY	NON-MASTERY
1.	Properly define telephone terminology.	________	________
2.	Demonstrate characteristics of good listening skills.	________	________
3.	Demonstrate positive techniques of handling incoming telephone calls.	________	________
4.	Demonstrate positive techniques of placing outgoing telephone calls.	________	________
5.	Compare the various parts of the telephone directory.	________	________
6.	Demonstrate the ability to take messages.	________	________
		________	________
		________	________

STUDENT NAME ____

SUGGESTED UNIT LESSON PLAN

SECTION IV: COMMUNICATING EFFECTIVELY

UNIT III: WRITTEN COMMUNICATION SKILLS

ESSENTIAL ELEMENTS: **75.87 (d)/(m)(5)(C)**

ALLOCATED TIME: 15-30 Hours

UNIT OBJECTIVE: Students will be able to prepare effective written communications.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Identify terminology related to written communications.
2. Identify and compose various types of business letters.
3. Use proper formatting techniques in preparation of various types of business documents.

FOCUS: Written communication skills are necessary in today's business offices. The beginning office worker needs to gain experience in the basic written communication areas to be knowledgeable and to contribute to the productivity of the business office.

DOMAINS: Activities and competency tests have been designed to provide learning experiences utilizing the cognitive, psychomotor, or affective domains. Activities and competency tests are coded on the Activity and Competency Test Matrices.

BASIC SKILLS: Activities and competency tests have been designed to reinforce the basic skills of reading, writing, and/or mathematics. Activities and competency tests have been coded on the Activity and Competency Test Matrices.

CONTENT OUTLINE

I. Techniques of writing business letters
    A. Steps in composing letters
    B. Criteria for composing a business letter
    C. Ideas to consider when composing letters
    D. Hints for writing business letters
    E. Types of business letters
        1. Goodwill letters
        2. Request letters
        3. Positive response letters
        4. Negative response letters

II. Preparing business documents
    A. Interoffice memorandums
    B. Business forms
    C. Business reports

SUGGESTED TEACHER ACTIVITIES

General Teacher Preparation

1. Preview unit.
2. Review unit objective.
3. Make instructional analysis.
4. Assess student learning needs.
5. Decide on lesson domain: cognitive, psychomotor, or effective domain.
6. Select instructional materials based on instructional analysis and student learning needs.
7. Select instructional strategies based on lesson content and student learning needs.
8. Prepare lesson plans from the unit lesson.
9. Prepare additional instructional material.
10. Reserve necessary media and equipment.

Teacher Presentation

1. Present student objectives.
2. Establish rapport with students.
3. Review lesson objectives with students.
4. Relate lesson to prior or future learning.
5. When appropriate, encourage student interaction through questioning, discussions, or some other strategy.
6. Emphasize the value/importance of the unit or activity.
7. Allow time for closure of a lesson.

Reteach Activities

1. Identify area(s) of weakness from results of evaluation.
2. Select unit activities not previously used.
3. Use additional resources and/or create materials based on student learning needs.
4. Use a different teaching strategy in reteaching.
5. Retest.

Specific Teaching Suggestions

1. Obtain samples of letters from various businesses in the community to use during the discussion of effective written communication.
2. Obtain the slide/tape presentation "Developing and Improving Written Communication: Writing Business Letters" from the Educational Development Training Center. Preview the presentation, and determine how it will be used with the unit.
3. Prepare transparency masters of the letter types for use on an overhead projector and/or as handouts for the students.
4. Arrange for a person from the business community to speak to the class on the importance of acquiring good communication skills.
5. Design a bulletin board introducing the unit.
    (1) Include samples of the four basic types of business letters, and label each to indicate the type of letter.
    (2) Include samples of business letters obtained from the business community.
6. Discuss the purposes of business communications.
7. Discuss the four basic types of business letters. Use transparency masters to clarify how to compose each of the letter types and to point out how each of the letters follows the format suggested.
8. Discuss the steps in composing letters.
    (1) Provide a situation for writing a letter, and demonstrate the step-by-step procedures for composing the letter.
    (2) Discuss the "you" attitude when writing letters.
    (3) Provide examples to facilitate discussion about being concise and using positive language when writing letters.
9. Discuss the points to consider when striving for good human relations in business communication.
10. Show various types of stationery. Explain quality of paper, logo, color, etc.
11. Provide students with sample business letters. Have them proofread each letter, circle any errors, and make the proper corrections for each. Review unit on proofreading.
12. Provide students with several short topics for research about which they may easily obtain information. Have them bring their resources to class, or provide time in the library. Students should find their information, read through it, make notes, prepare an outline, and write a short report.

Specific Activities and Test Instructions

ACTIVITIES

Activity 2

It is important to review and discuss thoroughly the steps in composing a business letter. Review examples of business letters with students.

Activity 4

Composing letters is a task that requires practice. You may want to keep activities basic and simple. You may choose to have the students write only one business letter or to change the subject to something that is of interest to them. It will depend on the makeup of your class. Students usually need extensive assistance with composing letters. Use examples.

COMPETENCY TEST

Part II

Be sure students have time to complete the test. You may need to schedule two days.

ACTIVITY MATRIX

Activities	**Domains**			**Basic Skills**		
	Cognitive	**Psycho-motor**	**Affective**	**Reading**	**Writing**	**Math**
1	X			X		
2 Project 1	X				X	
Project 2	X			X		
Project 3	X				X	
3 Project 1	X				X	
Project 2	X				X	
Project 3	X	X			X	
Project 4	X	X		X	X	
Project 5	X	X		X	X	
Project 6	X	X		X	X	
Project 7	X	X		X	X	
Project 8	X	X		X	X	

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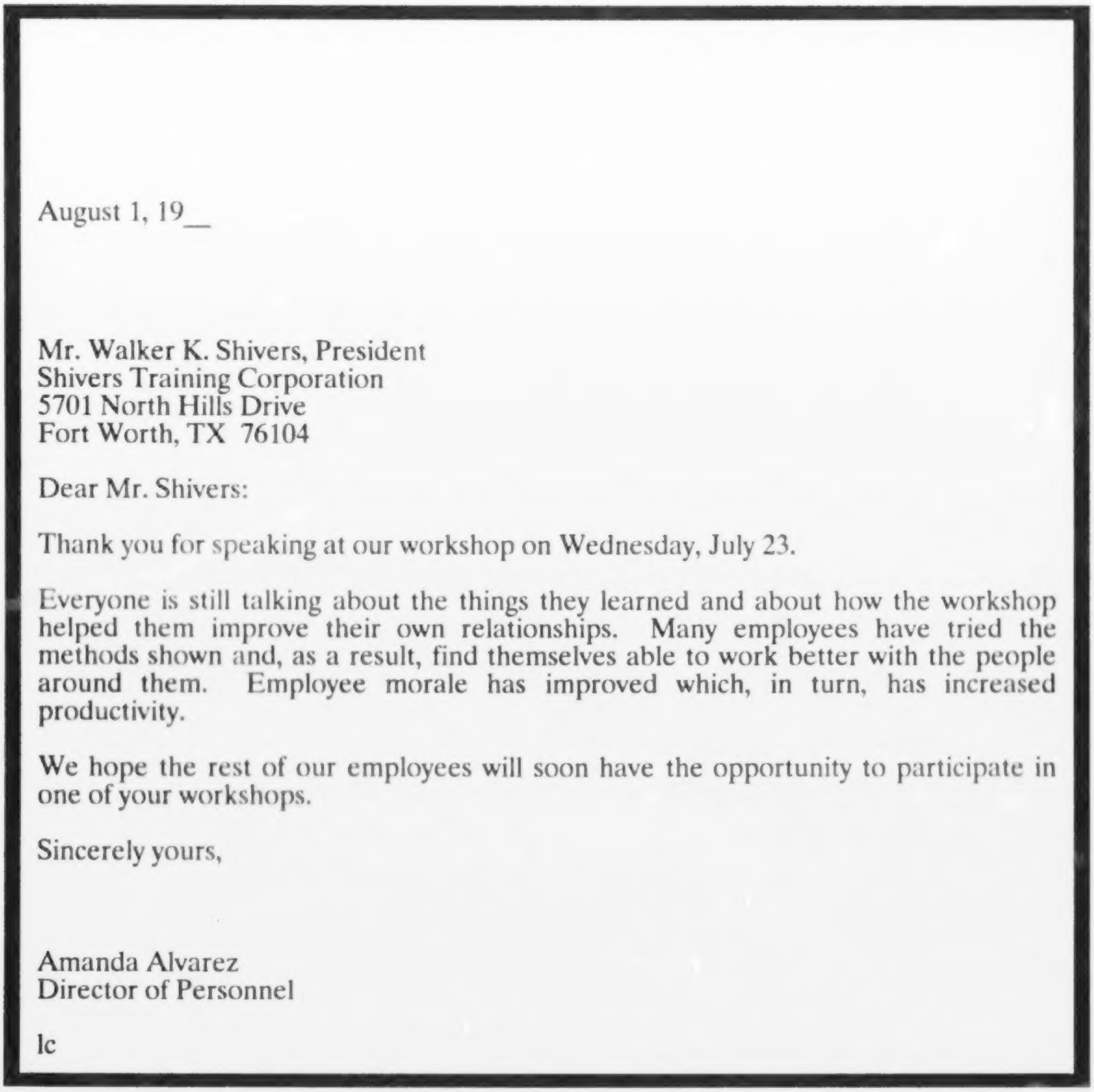
COMPETENCY TEST MATRIX

Parts	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
I	X			X		
II Project 1	X			X		
Project 2	X				X	
Project 3	X				X	
Project 4	X	X		X	X	
III Project 1	X			X		
Project 2	X	X		X	X	
Project 3	X	X		X	X	

HANDOUT 1: LETTER OF GOODWILL



August 1, 19__

Mr. Walker K. Shivers, President
Shivers Training Corporation
5701 North Hills Drive
Fort Worth, TX 76104

Dear Mr. Shivers:

Thank you for speaking at our workshop on Wednesday, July 23.

Everyone is still talking about the things they learned and about how the workshop helped them improve their own relationships. Many employees have tried the methods shown and, as a result, find themselves able to work better with the people around them. Employee morale has improved which, in turn, has increased productivity.

We hope the rest of our employees will soon have the opportunity to participate in one of your workshops.

Sincerely yours,

Amanda Alvarez
Director of Personnel

lc

HANDOUT 2: PERSONAL LETTER OF GOODWILL

604 Villawood Lane
Coppell, TX 75019
March 29, 19--

Mr. John H. Rose
Austin Junior High School
1501 North Britain Road
Irving, TX 75061

Dear John,

Congratulations on being selected as vice-principal at Austin Junior High School. I knew it was just a matter of time before the district discovered your talents as an administrator. Of course, being your sister-in-law does not mean I am one bit prejudiced--I believe talent just runs in the family.

Not only am I proud of you, but I am also "green" with envy. You are now going to be working with one of the finest men in the Irving Independent School District, Mr. Kenneth Tillman. As you know, Mr. Tillman hired me and was the only principal I have worked under until this past year. In my book, he is the greatest, and you could not have a better master to learn from.

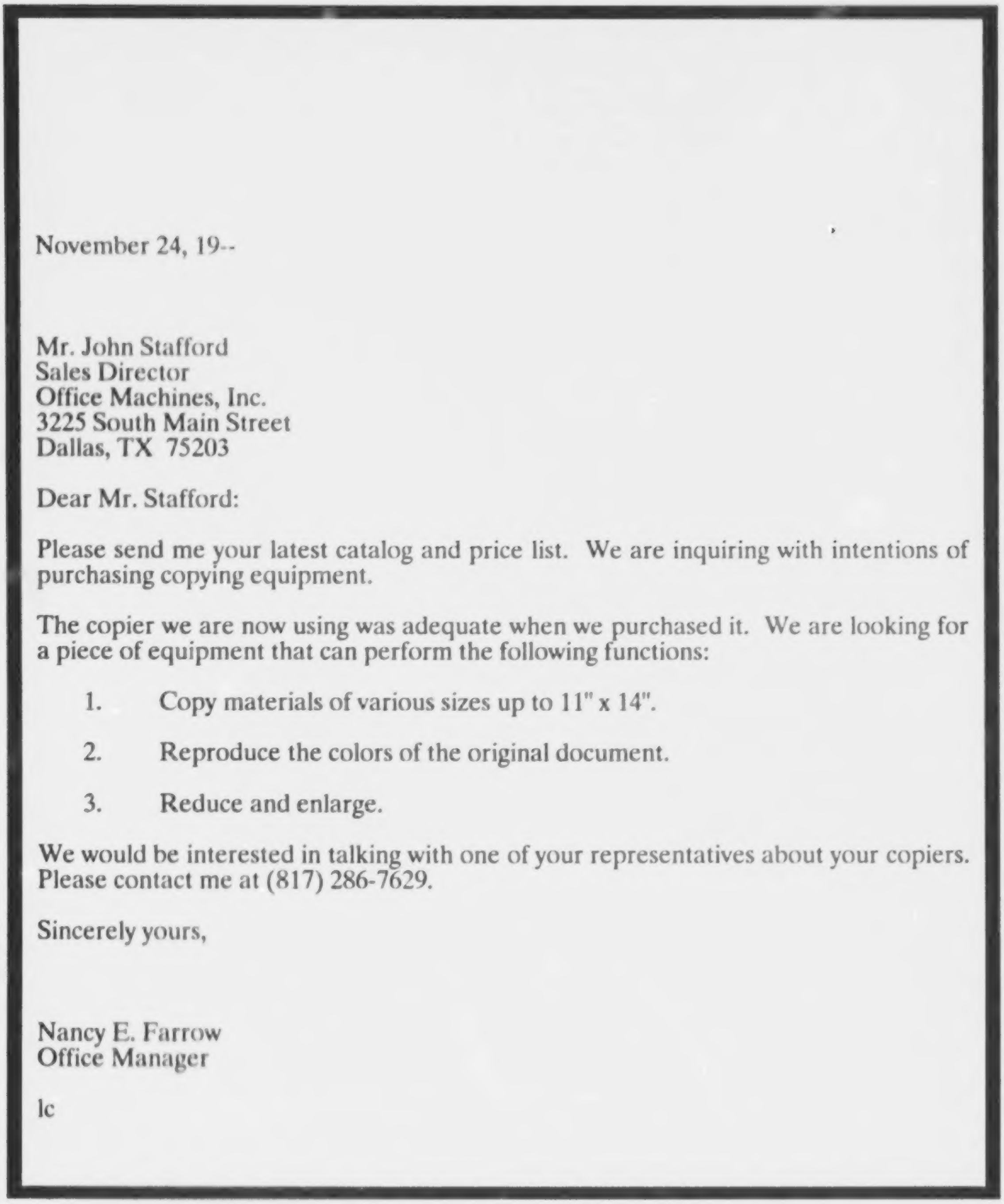
John, I could not be happier for you if you were my own brother. You have accomplished your goal in record time. Keep working on your doctorate, for I expect you to be superintendent one day. Irving is now going to find out what the Rose family has always known--John Rose is going places!

Best regards,

Helen

lc

HANDOUT 3: LETTER OF REQUEST



November 24, 19--

Mr. John Stafford
Sales Director
Office Machines, Inc.
3225 South Main Street
Dallas, TX 75203

Dear Mr. Stafford:

Please send me your latest catalog and price list. We are inquiring with intentions of purchasing copying equipment.

The copier we are now using was adequate when we purchased it. We are looking for a piece of equipment that can perform the following functions:

1. Copy materials of various sizes up to 11" x 14".
2. Reproduce the colors of the original document.
3. Reduce and enlarge.

We would be interested in talking with one of your representatives about your copiers. Please contact me at (817) 286-7629.

Sincerely yours,

Nancy E. Farrow
Office Manager

lc

HANDOUT 4: LETTER OF POSITIVE RESPONSE

November 29, 19--

Nancy E. Farrow
Office Manager
Time Computer
4528 West Way Street
Dallas, TX 75403

Dear Ms. Farrow:

Thank you for your letter of November 24. The current catalog and brochures for the different copiers you requested are enclosed.

Mr. John Smith, our sales representative for your area, was informed of your interest in one of our copiers. He should be contacting you in the near future to schedule an appointment to meet with you.

If I can be of any further assistance to you, please let me know.

Sincerely,

John Stafford
Vice-President of Sales

lc

Enc.

HANDOUT 5: LETTER OF NEGATIVE RESPONSE

August 21, 19--

Ms. Crystal Walthall
Personnel Director
Yents Corporation
420 South Freeway
San Antonio, TX 78218

Dear Ms. Walthall:

Thank you for your invitation to speak at your office managers workshop on October 7. The topic you have selected, "Stress in the Working Place," is very appealing. However, I have already accepted another speaking engagement for that day.

If you are interested in contacting someone else from Superior Publications, let me recommend Duane Jeffrey. Duane is an excellent speaker. His phone number is (715) 834-8967.

I appreciate your invitation. If I can be of any further assistance, please let me know.

Sincerely yours,

Susan Thornhill
Wetherby Corporation

lc

HANDOUT 6: LETTER OF NEGATIVE RESPONSE

The Campus Clothiers
4211 Eagle Drive
Denton, Texas 75011
(817) 565-4022

April 5, 19--

Mr. Mike Davidson
2924 Denton Drive
Denton, TX 75011

Dear Mr. Davidson:

As a student at the University of North Texas, we welcome you to The Campus Clothiers. You have selected one of the highest quality men's stores in Denton for your fashion needs.

The first year at school and living away from home can be a hardship on a freshman. Going to school full time means that there are only a few hours a week left to work. Although we are unable to establish an account in your name at this time, we do offer an alternative plan which may be of interest in meeting your needs for fine clothing.

The Campus Clothiers has a "Student Plus Plan" which allows you to select clothing which we will hold for 90 days. There is no interest or carrying charges added to your purchase. We only ask that you make a small deposit and pay monthly until the balance is paid at the end of 90 days. This plan is very popular with UNT's "best dressed" students. The current issue of Campus News carries our ad on the "Student Plus Plan."

As a valued customer, Mr. Davidson, we look forward to serving your needs during your college years. Your fashion needs will always be met at The Campus Clothiers for the most reasonable price and the finest style.

Sincerely,

Helen R. Rose
Sales Manager

HANDOUT 7: MEMORANDUM

HARDY AND SMITH, INC.

MEMO

TO: Department Heads

FROM: J. M. Rose, Director of Security

DATE: February 21, 19xx

SUBJECT: Fire Safety

The safety committee will sponsor a seminar Tuesday, March 1, at 2:00 p.m. in the Gold Room. Fire Marshall Henry Wilson will speak on "Fire Safety Above Ground Level."

Please announce this to your employees, and urge them to attend. Refreshments will be served and door prizes given.

lc

HANDOUT 8: SAMPLE OF CONCISE SENTENCES

Avoid being wordy in your sentences. To avoid confusion, cut down on the number of unnecessary words you use, and be concise. Below are some examples of how to use words effectively.

WORDY	CONCISE
We have your letter of June 10, for which we express our thanks.	Thank you for your letter of June 10.
I would like to take this opportunity to thank you for letting us be of assistance to you.	Thank you for letting us help you.
Please do not hesitate to call on us whenever we can be helpful in any way.	Please call on us whenever we can help.
In the event that any further information comes to your attention, we shall appreciate your sending it to us.	We will appreciate your sending us any further information you receive.
We look forward with pleasure to the opportunity to be of further service to you.	It will be a pleasure to serve you again. or Serving you again will be our pleasure.
It will be appreciated if you will inform us when you have reached a decision.	Please let us know your decision.

HANDOUT 9: SAMPLES OF SUBSTITUTE PHRASES

Below is a list of words that can be used to keep your letter simple and direct. Add to this list, and keep it as a reference when writing letters.

INSTEAD OF	SAY
contact you by telephone	call you
in the event that	if
for the purpose of	for
it is probable that	probably
may or may not	may
in order to	to
with this letter I am enclosing	enclosed is
at an early date	soon
due to the fact that	because
meets with our approval	we approve
at the present time	now
in a position to	can
reason is because	because
in the course of	during
at this point in time	now
in the near future	soon
please do not hesitate to	please
the early part of next month	early next month
if this should prove to be the case	in that case
at all times	always
this day and age	today
experience indicated that	we learned

HANDOUT 10: SAMPLE OF FAMILIAR WORDS

Short, familiar words make for easy reading and quick understanding. When a simple word will convey your meaning quickly and clearly, use it instead of one that is longer and less familiar. Below is a list of words to help you to write easy-to-understand letters. Add to the list as you come across words you feel will help you.

RATHER THAN	SAY
propound	ask
numerous	many
acknowledgment	reply
subsequently	later
cognizant	aware
terminate	close or end
initiate	begin
frequently	often
purchase	buy
equitable	fair
commence	start
communication	letter
gratuitous	free
concur	agree
possess	have or own
retain	keep
approximately	about
endeavor	try
converse or confer	talk
assistance	help
ascertain	find or learn

HANDOUT 11: SAMPLE OF POSITIVE WORDS

To help you in writing letters with positive tones, use the words listed below. As you find other positive words, add to this list.

ability
advantage
agreeable
benefit
comfortable
confident
dependable
deserving
effective
exclusive
enjoy
fitting
fortunate
generous
good
gratifying
happy
help
kind
lasting
pleasant
please
pleasure
profit
prominent
recommend
responsible
satisfaction
success
thoughtful
welcome

HANDOUT 12: SAMPLE OF COMMONLY MISSPELLED WORDS

absence
accidentally
accommodate
accompanying
achievement
acquaintance
across
aggressive
aging
aisle
alignment
all right
already
analysis
analyze
answer
apparently
approximate
architect
argument
assistance
attorney
autumn
bachelor
bankruptcy
basically
beginning
believe
benefited
boundary
breakfast
brochure
buses
business
calendar
calorie
campaign
canceled
catalog
category
cemetery
census
changeable
column
committee
comparison
conscience
consistent
continuous
controversy
convenience
criticism
debt
defense
definite
dependent
describe
development
dilemma
disappoint
dissatisfied
double
eighth
either
eligible
eliminate
embarrass
emphasize
empty
environment
exaggerate
exceed
excellent
exercise
existence
experience
extension
extraordinary
eyeing
familiar
fantasy
fascinating
February
foreign
forfeit
forty
fourteen
fourth
fulfill
glamour
government
grammar
grateful
guarantee
guardian
harass
height
hygiene
incidentally
jeopardy
judgment
laboratory
ledger
leisure
liable
library
license
lien
lightning
likable
lose
maintenance
marriage
mileage
millionaire
miscellaneous
mischievous
misspell
mortgage
motor
movable
necessary
negotiate
neither
ninety
ninth
noticeable
nuclear
occasionally
occurrence
offense
offered
oneself
opinion
pamphlet
parallel
partially
patience
permissible
persistent
persuade
physician
possessions
practically
practice
privilege
procedure
proceed
psychological
quantity
receipt
receive
recommend
reference
reinforce
relevant
restaurant
resume
retroactive
rhythm
schedule
scissors
seize
separate
siege
similar
sincerely
skillful
souvenir
sponsor
summary
surgeon
surprise
technique
temperature
their
theory
thoroughly
through
totaled
tragedy
traveler
unforgettable
unique
usage
vegetable
victim
volume
Wednesday
weird
whether
yield

COMPETENCY TEST

PART I: TERMINOLOGY

INSTRUCTIONS: **Match the following terms with their definitions.**

A. Appendix
B. Authorization
C. Clear
D. Concise
E. Complete
F. Correct
G. Courteous
H. Formal
I. Goodwill
J. Informal
K. Letter
L. Memo
M. Synopsis
N. Title fly
O. Transmittal
P. Visual aids
Q. "You" attitude

_____ 1. A favorable impression that businesses seek to create.

_____ 2. Supplying all the necessary data in order for the information to be understood.

_____ 3. Message from the author to the reader.

_____ 4. Text that consists of the fewest and most straightforward words possible.

_____ 5. The summary of a report.

_____ 6. Illustration, charts, and graphs.

_____ 7. Long reports with several parts--the more parts, the more formal the report.

_____ 8. Additional (but not vital) information located at the end of a report.

_____ 9. A short report written in letter form to someone outside a company.

_____ 10. Data are accurate and current.

_____ 11. Short report used for interoffice communications.

_____ 12. Being polite, considerate, and thoughtful; traits expected by businesses when their employees deal with customers.

_____ 13. Keeping in mind the reader's point of view, and putting the reader's interests first.

_____ 14. Short reports in various forms.

_____ 15. Communication that is intelligible or understandable.

PART II: TECHNIQUES FOR WRITING BUSINESS LETTERS

Project 1

INSTRUCTIONS: **Answer the following statements True or False by placing a T for True or F for False in the space at the left.**

_______ 1. The purpose of a letter of request is to thank someone for a pleasing action or good service.

_______ 2. The purpose of a goodwill letter is to promote a favorable impression.

_______ 3. The purpose of a positive response letter is to grant a request and to build goodwill.

_______ 4. The purpose of a negative response is to maintain goodwill.

_______ 5. In writing a business letter, use the words *I*, *mine*, *we*, and *ours* rather than *you* and *yours*.

_______ 6. Always suggest rather than demand in a business letter.

_______ 7. Always proofread to make sure the letter is correct.

_______ 8. The message should always be stated bluntly, even if it is a negative message.

_______ 9. All sentences in the letter should be short and simple.

_______ 10. Write as if you were speaking directly to the reader.

Project 2

INSTRUCTIONS: **List the three main steps in composing a letter.**

1.

2.

3.

PART II (Continued)

Project 3

INSTRUCTIONS: List four hints for composing a letter.

1.

2.

3.

4.

PART II (Continued)

Project 4

INSTRUCTIONS: **Think of an adult who has made a favorable impression on you. Compose a letter of goodwill thanking this person and telling why you appreciate him or her.**

Type the letter on plain paper in an appropriate business letter style. Proofread to ensure accuracy, and make any necessary corrections to produce a mailable document.

Remember, a goodwill letter usually has three paragraphs:

Paragraph 1 promotes goodwill.

Paragraph 2 expands and explains.

Paragraph 3 repeats goodwill.

PART III: DOCUMENT FORMATTING

Project 1

INSTRUCTIONS: **Decide whether this is a part or a characteristic of a memorandum, business form, or a report. Place the appropriate letter in the blank provided.**

M-Memorandum F-Form R-Report

_______ 1. TO:

_______ 2. Reference

_______ 3. Use elite type so the information will fit in the space provided

_______ 4. Message

_______ 5. Table of contents

_______ 6. FROM:

_______ 7. Title page

_______ 8. Used for short reports submitted at regular intervals

_______ 9. Paragraph and side headings

_______ 10. Distributed within an organization

_______ 11. Single-spaced to save space and paper

_______ 12. A set of forms joined together to another form in a continuous packet

_______ 13. Footnotes

_______ 14. Subject

_______ 15. Left-bound

PART III (Continued)

Project 2

INSTRUCTIONS: **Key in the following memo in proper format.**

Memo to the Essex Corporation department heads--Ms. Jackie Smith, Mr. Jeff Block, Ms. Donna Caper, Ms. Diane Balay

From--Janice Elkins, Personnel Department

Subject--Word Processing Workshop

Date--October 1, 19___

This is to remind all department heads that the "Word Processing Workshop for Secretaries" will be held on Wednesday, October 10, and Thursday, October 11. Each session will begin at 6 p.m. and continue until 9 p.m. in room 219 of the training center.

The first session will cover the topics of correct procedures for writing and typing business letters and company memos. The October 11 session will cover the area of procedures for typing businesss reports. The trainer for this session will be Dr. Rebecca Waren, who is a training consultant from Garland County Community College in Hot Springs, Arkansas.

urs

PART III (Continued)

Project 3

INSTRUCTIONS: Key in the following business report in proper format. Include a bibliography.

BUSINESS REPORTS

The purpose of a report is to give current information about a subject in a form that is easy to understand and useful to the person(s) receiving the report.

Characteristics of Business Reports
Formal business reports include:

1. Single-spacing to save paper.
2. Left-bound margins.
3. Elite type.
4. Summary, conclusion, and recommendation placed at beginning of report.
5. Illustration, tables, and charts used to present information.
6. Endnotes used in footnoting.(1)

Formatting a Business Report
Business report formatting includes:

1. Left-bound reports--use a 1 1/2-inch left margin and a 1-inch right margin.
2. Unbound reports--use a 1-inch left margin and a 1-inch right margin.
3. Top margins--title is keyed in all caps and centered on line 13, leaving a 2-inch top margin. Begin all other pages on line 7, leaving a 1-inch top margin.
4. Bottom margins should be 1 inch on each page.
5. Page numbers of the introductory pages are typed with small Roman numerals. Consecutive Arabic numerals are used to number pages within the body of the report. Page numbers may be placed at the right, top margin, centered in the bottom margin, or centered in the top margin.(1)

Headings in a business report are centered in all capital letters preceded by a triple space and followed by a double space. Spacing may be adapted to your word processing program.

Sideheadings are typed at the left margin with a triple space before and a double space after the heading. They may be typed in all capitals or in underlined uppercase and lowercase letters.

PART III (Continued)

Project 3 (Continued)

Paragraph headings are indented and underlined. Only the first word is capitalized. Place a period at the end of the heading, and begin the paragraph. Leave a double space above the heading.

Parts of a Formal Business Report

The body of the business report is keyed in pargraph form with headings. Sideheadings are underlined and preceded by a triple space and followed by a double space. A formal business report is single-spaced and consists of the following parts.

Introductory pages include title page or cover sheet which contains:a. Title of report. b. Name of person who prepared the report. c. Name of person to whom report is to be distributed. d. Date of distribution.

The title page should have a minimum of a 1-inch top and bottom margin, information should be centered vertically and horizontally on the page, title should be keyed in all capitals, and the remaining information should be keyed in uppercase and lowercase letters.

The table of contents contains a brief outline of the report contents and specific pages of information.

Paragraph headings should be indented five spaces and underlined, followed by a period.

Footnotes in business reports use the endnote system. Place the name of the author and the page number of the quoted material in parentheses after the quote in the body of the report. Place the date of the publication between the author's name and page number if two or more publications by the same author are used. Supply complete publication information in a list of endnotes at the end of the paper.(3)

Standard formatting procedures for footnotes placed at the bottom of the page on which they are listed include the following rules. Use a 1 1/2-inch underscore to separate footnotes from the report body. Single-space before the underscore, and double-space after it. Number each footnote to match those given in the text. Indent the first line of each footnote five spaces. Single-space within footnotes, double-space between footnotes. Leave 1-inch top and bottom margins on each page.

References/Bibliography section provides a complete listing of those materials that were used in preparation of the body of the report. The heading of a bibliography is centered two inches from the top of the paper. A triple space follows the heading. Single-space within each entry, and double-space between entries. All entries should be in alphabetical order by author's surname, and the second line and subsequent lines of each entry should be indented five spaces.

PART III (Continued)

Project 3 (Continued)

FOOTNOTES--REPORT FORMAT

1.APA Publication Manual, 2d ed. (Washington, D.C.: American Psychological Association, 1974), p. 17.

2.Joseph Gibaldi and Walter S. Achtert, MLA Handbook for Writers of Research Papers, Theses, and Dissertations (New York: Modern Language Association, 1977), p. 24.

3.Catharine Seybold and Bruce Young, The Chicago Manual of Style, 13th ed. (Chicago: The University of Chicago Press, 1982), p. 51.

ANSWERS TO ACTIVITIES

Activity 1

```
 CONCISE
    O
MEMORANDUMREPORT
    R          R
    E L        A
    C E  C  S  N
    T T  O  Y  S
  C   T  M  N  M
  O   E  P  O  I
  U FORMALREPORT Y
  R      E  S  T O
  T      T  I  A U
  E  G   E  S CLEAR
  O  O         L T
 AUTHORIZATIONLETTER
  S  D         T I
     W         T T
    VISUALAIDS E U
     L         R D
  TITLEFLY       E
```

Activity 2

<u>Project 1</u> The descriptions may vary; evaluated to the satisfaction of the instructor.

1. Organizing

-- Gather any information needed in order to write the letter--correspondence, notes, etc.
-- Read through examples of other letters to help you understand how your employer wants letters to be written.

2. Planning

-- Organize your thoughts before you begin to write.
-- Develop an outline of points (ideas) that should be included in the letter.
-- Decide on the most logical order in which to express these ideas.

3. Writing

-- Develop a rough draft of the letter.
-- Read through the draft to ensure the following:

a. Correctness of grammar, punctuation, etc.
b. Appropriateness of the information included.
c. "Flow" of the message.

Project 2

1.	B	7.	C	13.	E
2.	D	8.	A	14.	E
3.	C	9.	E	15.	E
4.	E	10.	B	16.	C
5.	A	11.	C	17.	E
6.	D	12.	B	18.	D

Project 3

1. Be concise; avoid using trite expressions or unnecessary words.

2. Use words, phrases, or clauses that enable the message to flow smoothly from one thought to another.

3. Use the "you" attitude; be aware of the reader's point of view when writing the letter.

4. Use positive language to avoid leaving negative impressions in the reader's mind.

5. Write as if you were speaking directly to the reader, so that your correspondence sounds more personal and friendly.

6. Use a variety of sentence structures to maintain the reader's interest.

7. Maintain goodwill by suggesting, rather than demanding; by refraining from accusations; and by offering alternatives when appropriate.

8. Proofread the letter.

Activity 3

Project 1

1. **Heading**--name of the company, usually on a printed form which includes TO:, FROM:, DATE:, and SUBJECT:.

2. **Subject**--a statement explaining what the memo is about.

3. **Message**--presents the idea and details.

Project 2

1. **Title page**--the cover sheet includes the title of the report, the name of person who prepared the report, the name of person to whom the report is to be distributed, and the date.
2. **Table of contents**--an outline of a contents of the report, which is prepared after the body of the report is typed.
3. **Body of the report**--includes facts and information and discusses the objective or problem.
4. **References**--provides a complete listing of materials used in preparing the body of the report. A cover page is prepared to separate this section from the other parts of the report.

Projects 3-8 Evaluated to the satisfaction of the instructor.

COMPETENCY TEST ANSWERS

Part I

1. I
2. E
3. O
4. D
5. M
6. P
7. H
8. A
9. K
10. F
11. L
12. G
13. Q
14. J
15. C

Part II

Project 1

1. F
2. T
3. T
4. F
5. F
6. T
7. T
8. F
9. F
10. T

Project 2

1. Organize
2. Plan
3. Write

Project 3 Any four of the following:

1. Be concise; avoid using trite expressions or unnecessary words.
2. Use words, phrases, or clauses that enable the message to flow smoothly from one thought to another.
3. Use the "you" attitude; be aware of the reader's point of view when writing the letter.
4. Use positive language to avoid leaving negative impressions in the reader's mind.
5. Write as if you were speaking directly to the reader so that your correspondence sounds more personal and friendly.
6. Use a variety of sentence structures to maintain the reader's interest.
7. Maintain goodwill by suggesting, rather than demanding; by refraining from accusations; and by offering alternatives when appropriate.
8. Proofread the letter.

Project 4 Evaluated to the satisfaction of the instructor.

Part III

Project 1

1. M
2. R
3. F
4. M
5. R
6. M
7. R
8. F
9. R
10. M
11. R
12. F
13. R
14. M
15. R

Project 2

ESSEX CORPORATION

INTEROFFICE MEMO

TO: Ms. Jackie Smith, Mr. Jeff Block, Ms. Donna Caper, Ms. Diane Balay

FROM: Janice Elkins, Personnel Department

SUBJECT: Word Processing Workshop

DATE: October 1, 19___

This is to remind all department heads that the "Word Processing Workshop for Secretaries" will be held on Wednesday, October 10, and Thursday, October 11. Each session will begin at 6 p.m. and continue until 9 p.m. in room 219 of the training center.

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urs

Project 3

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1. Single-spacing to save paper.
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[1] APA Publication Manual, 2d ed. (Washington, D.C.: American Psychological Association, 1974), p. 17.

[2] Joseph Gibaldi and Walter S. Achtert, MLA Handbook for Writers of Research Papers, Theses, and Dissertations (New York: Modern Language Association, 1977), p. 24.

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Parts of a Formal Business Report

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BIBLIOGRAPHY

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Seybold, Catharine, and Bruce Young. The Chicago Manual of Style. 13th ed. Chicago: The University of Chicago Press, 1982.

RESOURCES

TEXT/WORKBOOKS

A BETTER WAY OF WRITING
South-Western Publishing Co.

BASIC ENGLISH FOR BUSINESS COMMUNICATIONS
Glencoe Publishing Co.

BASIC LETTER AND MEMO WRITING
South-Western Publishing Co.

BUSINESS COMMUNICATION
South-Western Publishing Co.

BUSINESS COMMUNICATIONS-A PROBLEM SOLVING APPROACH
Gregg Divison/McGraw-Hill Book Co.

BUSINESS CORRESPONDENCE/30
Gregg Divison/McGraw-Hill Book Co.

BUSINESS ENGLISH/30
Gregg Divison/McGraw-Hill Book Co.

BUSINESS ENGLISH AND COMMUNICATION
Gregg Divison/McGraw-Hill Book Co.

BUSINESS ENGLISH ESSENTIALS
Gregg Divison/McGraw-Hill Book Co.

BUSINESS LETTERS AND REPORTS
Bobbs-Merrill Publishing Co.

BUSINESS LETTER WRITING
Instructive Materials Laboratory
Ohio State University

THE BUSINESS OF ORAL COMMUNICATION
South-Western Publishing Co.

BUSINESS SPELLING AND WORD POWER
Bobbs-Merrill Publishing Co.

COMMUNICATIONS AT WORK
South-Western Publishing Co.

COMMUNICATION SKILLS FOR THE PROCESSING OF WORDS
South-Western Publishing Co.

COURTESY UNDER PRESSURE
South-Western Publishing Co.

DEVELOPING LISTENING SKILLS
Gregg Divison/McGraw-Hill Book Co.

EFFECTIVE BUSINESS COMMUNICATION
South-Western Publishing Co.

EFFECTIVE ENGLISH FOR BUSINESS COMMUNICATIONS
South-Western Publishing Co.

ORAL AND WRITTEN COMMUNICATIONS
Career Aids, Inc.

TYPING MAILABLE LETTERS
Gregg Divison/McGraw-Hill Book Co.

UNDERSTANDING HUMAN COMMUNICATIONS
Adler, Rodman, Holt, Rinehart and Winston

WRITING CLEARLY: CONTEMPORARY APPROACH
Charles E. Merrill Publishing

WRITING, LISTENING, SPEAKING FOR BUSINESS AND PROFESSIONAL STUDENTS
Wadsworth Publishing

PRACTICE SETS

BUSINESS COMMUNICATIONS
Activities book and teacher's guide
Glencoe Publishing Co.

CORRESPONDENCE
Film trainee work plan
Prentice-Hall Media

PUBLIC SPEAKING
Business Professionals of America Official Guide

SPEAKING TECHNIQUES
Business Professionals of America Official Guide

WRITTEN COMMUNICATIONS
Business Professionals of America Official Guide

MEDIA

BASIC KEYBOARDING APPLICATIONS--MICROWORLD
South-Western Publishing

BASIC WRITING SKILLS FOR BUSINESS
4 filmstrips and cassettes, 16 duplicating masters, teacher's guide, resource manual, and storage container
Career Aids, Inc.

BODY LANGUAGE
Career Aids, Inc.

COMMUNICATIONS: YOUR BRIDGE TO OTHERS
Career Aids, Inc.

COMPETENCY SKILLS: WRITING ON THE JOB
Filmstrips, cassettes, library kit, teacher's guide
Career Aids, Inc.

DEVELOPING AND IMPROVING WRITTEN COMMUNICATIONS: WRITING BUSINESS LETTERS
An Audiovisual Package
Educational Development and Training Center
East Texas State University

COMPETENCY CHECKLIST

ESSENTIAL ELEMENTS: 75.87 (d)/(m)(5)(C)

The student shall be provided opportunities to prepare effective written communications.

OBJECTIVE: Students will be able to prepare effective written communications.	MASTERY	NON-MASTERY
1. Identify terminology related to written communications.	______	______
2. Identify and compose various types of business letters.	______	______
3. Use proper formatting techniques in preparation of various types of business documents.	______	______
	______	______
	______	______

STUDENT NAME ______________________________

SUGGESTED UNIT LESSON PLAN

SECTION IV: COMMUNICATING EFFECTIVELY.

UNIT IV: LANGUAGE USAGE SKILLS

ESSENTIAL ELEMENT: 75.87 (d)/(m)(5)(D)

ALLOCATED TIME: 15-30 Hours

UNIT OBJECTIVE: Students will be able to demonstrate proper language usage skills in business.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Apply spelling rules.
2. Identify and correctly use various punctuation marks.
3. Identify and apply rules for capitalization.
4. Identify and apply rules for writing sentences.

FOCUS: Proper language skills play an important role in our daily lives. These skills are mirrors of our character and personality. As they reflect our personal lives, they also present an image in the business world. Meeting the demands of the modern business world requires proper speaking and writing skills.

DOMAINS: Activities and competency tests have been designed to provide learning experiences utilizing the cognitive, psychomotor, or affective domains. Activities and competency tests are coded on the Activity and Competency Test Matrices.

BASIC SKILLS: Activities and competency tests have been designed to reinforce the basic skills of reading, writing, and/or mathematics. Activities and competency tests have been coded on the Activity and Competency Test Matrices.

CONTENT OUTLINE

I. Applying spelling rules
  A. Spelling tips
  B. Simple spelling rules

II. Punctuation marks
  A. Period
  B. Comma
  C. Semicolon
  D. Colon
  E. Hyphens
  F. Dashes

III. Capitalization
  A. First word of every sentence
  B. Proper nouns

IV. Writing sentences
  A. Parts of speech
  B. Types of clauses
  C. Types of sentences
  D. Subject and verb agreement
  E. Sentence construction

SUGGESTED TEACHER ACTIVITIES

General Teacher Preparation

1. Preview unit.
2. Review unit objectives.
3. Make instructional analysis.
4. Assess student learning needs.
5. Decide on lesson domain: cognitive, psychomotor, or affective domain.
6. Select instructional materials based on instructional analysis and student learning needs.
7. Select instructional strategies based on lesson content and student learning needs.
8. Prepare lesson plans from the unit lesson.
9. Prepare additional instructional material.
10. Reserve necessary media and equipment.

Teacher Presentation

1. Present student objectives.
2. Establish rapport with students.
3. Review lesson objectives with students.
4. Relate lesson to prior or future learning.
5. When appropriate, encourage student interaction through questioning, discussions, or some other strategy.
6. Emphasize the value/importance of the unit or activity.
7. Allow time for closure of a lesson.

Reteach Activities

1. Identify area(s) of weakness from results of evaluation.
2. Select unit activities not previously used.
3. Use additional resources and/or create materials based on student learning needs.
4. Use a different teaching strategy in reteaching.
5. Retest.

Specific Teaching Suggestions

1. For an introduction to the section, show a film on "Communications." The Education Service Center may have one available.
2. Invite a guest speaker from business to introduce the unit. A suggested topic is "Communication Skills in Today's Office."
3. Secure several periodicals or articles on the importance of communication skills. Assign outside readings, or you may want to provide class time for readings.
4. Use questioning as a strategy to get into the unit. Ask questions such as: What is communication? What is language usage?
5. Design a bulletin board showing major language usage skills.
6. Whenever appropriate, assign the activities to be completed using the keyboard. Students will gain practice in keyboarding.
7. Note there is no activity for the terminology. Use as you wish.

Specific Activities and Test Instructions

ACTIVITIES

Activity 2

Project 1	When students are finished with this activity, have them check each others' work using a dictionary.
Activities 3 & 4	By having students type the sentences correctly, these activities can be used as a typing lesson.

Activity 5

Project 1	Assign completion of the incomplete sentences.

ACTIVITY MATRIX

Activities	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
1 Project 1	X			X		
Project 2	X			X	X	
Project 3	X			X	X	
Project 4	X			X	X	
Project 5	X			X	X	
2 Project 1	X			X		
Project 2	X			X		
Project 3	X			X		
3	X			X		
4 Project 1	X			X		
Project 2	X			X		
Project 3	X				X	

COMPETENCY TEST MATRIX

Parts	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
I Project 1	X			X		
Project 2	X				X	
Project 3	X				X	
II	X			X		
III	X			X		
IV Project 1	X			X		
Project 2	X			X		
Project 3	X				X	

COMPETENCY TEST

PART I: SPELLING

Project 1

INSTRUCTIONS: **Circle the words which are spelled incorrectly.**

1. Nieghbor
2. Preview
3. Decieve
4. Brief
5. Greive
6. Yield
7. Weigh
8. Receive
9. Preist
10. Conveneince

Project 2

INSTRUCTIONS: **Properly spell the root word with its added suffix. Add or subtract letters as necessary.**

1. Take + en ____________________
2. Confer + ed ____________________
3. Run + er ____________________
4. Ability + es ____________________
5. Cry + ing ____________________
6. Agree + able ____________________
7. Live +ly ____________________
8. Attorney + s ____________________
9. Improve + ment ____________________
10. Plan + ed ____________________

PART I (Continued)

Project 3

INSTRUCTIONS: Spell the plural form of each of the following words.

1. Monkey ____________________
2. Year ____________________
3. Push ____________________
4. Echo ____________________
5. Baby ____________________

PART II: PUNCTUATION MARKS

INSTRUCTIONS: **Carefully read each of the following sentences, and add any necessary punctuation (periods, commas, semicolons, colons, hyphens, dashes).**

1. We are glad you are feeling better Mrs Parsons
2. Please order the following supplies pencils paper clips and erasers.
3. The up to date report is most impressive
4. Mary has gone to Chicago however she will return in time for the meeting
5. Barry's car the one on the left has a flat tire
6. We will pick you up at 745
7. Before leaving please straighten your room
8 Tim's bike is blue and Joe's is red
9. Sally will bake a cake and Debbie will make a salad
10. The principal Ms Goodwin will speak to the class today

PART III: CAPITALIZATION

INSTRUCTIONS: **Draw three lines under each letter that should be capitalized in the following sentences.**

1. governor wilson gave a very interesting speech on wednesday.
2. on tuesday, april 23, we will go on a field trip to dallas.
3. john moore, m.d., will speak to our science class today.
4. our new xerox is a very good copier.
5. martha said, "don't talk so loud."
6. alaska is the largest state.
7. is labor day always on a monday?
8. my friend, peggy, will arrive from atlanta on american airlines.
9. my favorite classes are english and history.
10. thanksgiving is always on a thursday.

PART IV: WRITING SENTENCES

Project 1

INSTRUCTIONS: Identify the complete sentences by placing a C in the correct space.

_____ 1. As soon as you get home.

_____ 2. The car is red.

_____ 3. Because of the rain.

_____ 4. The movie was great.

_____ 5. Every girl and boy is required to take English.

_____ 6. For your convenience.

_____ 7. Ken who goes to college.

_____ 8. When I return from the ballgame.

_____ 9. When John returns from the movie, he will help with the yardwork.

_____ 10. If the teacher says "Yes."

Project 2

INSTRUCTIONS: Circle the correct verb in each sentence.

1. Vickie and Linda (is, are) planning to attend the meeting.
2. Twenty-five dollars (is, are) all the money I have.
3. The news (is, are) great!
4. Every member of the club (was, were) at the meeting.
5. Cindy and Toni (is, are) my best friends.
6. The band (was, were) very good.
7. Neither Tom nor Ken (is, are) going to the game.
8. The class (is, are) going on a field trip tomorrow.
9. The jury (was, were) finished by noon.
10. John and Mary (was, were) at the dance.

PART IV (Continued)

Project 3

INSTRUCTIONS: Write one of each type of sentence.

1. Simple sentence

2. Compound sentence

3. Complex sentence

ANSWERS TO ACTIVITIES

Activity 1

Project 1

1. Veil
2. Shield
3. Perceive
4. Convenience
5. Leisure
6. Collie
7. Niece
8. Believe
9. Sleigh
10. Pierce
11. Chief
12. Conceit
13. Achieve
14. Yield
15. Siege
16. Vein
17. Thieves
18. Priest
19. Height
20. Grief

Project 2

1. Lobbying
2. Buying
3. Envied
4. Satisfied
5. Crying
6. Accompanying
7. Fisher
8. Scurried
9. Merciless
10. Busily
11. Coyness
12. Denying
13. Easiest
14. Delays
15. Biographical

Project 3

1. Happening
2. Controlled
3. Different
4. Occurred
5. Seemly
6. Bigger
7. Delivered
8. Popped
9. Lagged
10. Canned
11. Regrettable
12. Preferring
13. Allotment
14. Preference
15. Faithful
16. Fitter
17. Catching
18. Accounting
19. Effortless
20. Controlled

Project 4

1. Excitement
2. Outrageous
3. Forcible
4. Assurance
5. Lively
6. Refusal
7. Devoted
8. Agreeable
9. Imaginary
10. Engaging

Project 5

1. Capacities
2. Alleys
3. Pieces
4. Buses
5. Heroes
6. Safes
7. Activities
8. Shovels
9. Wheels
10. Flies
11. Monkeys
12. Echoes
13. Foxes
14. Ratios
15. Marches
16. Studios
17. Dishes
18. Tomatoes
19. Messes
20. Rodeos

Activity 2

Project 1

1. The car is out of gas, and I can't find a gas station.
2. He bought a tent, sleeping bag, and flashlight for the camping trip.
3. In the beginning, Melissa typed slowly.
4. The mailman's name is Mr. Juan Gonzalez.
5. Paul is going to town, but Chris is staying home.
6. Mrs. Smith is responsible for answering the phone.
7. The waitress served coffee, donuts, and toast to Ms. Adams.
8. The total amount of the check was $90,435.00.
9. The president of State University, Calvin Black, is addressing the club today.
10. My promotion was a long, long time ago.
11. Mr. Roberts has a beautiful, black dog.
12. On Monday, January 21, 1990, Miss Joan H. Reed will begin her new job.
13. Steve Boat, Jr., works for his father, Mr. Boat.
14. Jennifer said, "When are you leaving?"
15. John is four years old and Billy, two.

Project 2

1. He is expecting you at 9:30 a.m.
2. The instructions should have been made perfectly clear; this was not done the first time.
3. President Lincoln began the Gettysburg Address: "Four score and seven years ago...."
4. Sandra is married; however, Anne is single.
5. Buy these items at the store: batteries, tissue, and soda.
6. Now only one decision remains: which supplies to buy.
7. It was not an easy assignment; actually, it was almost impossible.
8. The office was just what he wanted: it was big enough, and the rent was reasonable.
9. The 10:00 a.m. meeting has been cancelled.
10. We knew you would be late; therefore, we started the meeting without you.

Project 3

1. There are twenty-five students in this class.
2. That girl--the one with red hair--is very attractive.
3. The book covered the period from 1974-1984.
4. Susan wanted an up-to-date dress for the dance.
5. The dog was small, cute, black--and mean.

Activity 3

1. The Red River separates Texas from Oklahoma.
2. My favorite holiday is Christmas.
3. George Bush, President of the United States, will be in Texas next week.
4. *Sports Illustrated* is my favorite magazine.
5. Tim's birthday is on Tuesday, January 25.
6. The South is a very romantic place to read about.
7. I would like to visit England, also known as Great Britain, someday.
8. My new refrigerator is a Frigidaire.
9. I have an appointment with Dr. Reed on Monday.
10. *The Red Badge of Courage* is one of the books I will read this summer.

Activity 4

Project 1

1.		6.	C
2.	C	7.	
3.		8.	C
4.	C	9.	
5.		10.	C

Project 2

1.	S	is	6.	P	are
2.	S	is	7.	S	is
3.	P	are	8.	S	is
4.	S	is	9.	P	are
5.	S	is	10.	S	is

Project 3 Evaluated to the satisfaction of the instructor.

COMPETENCY TEST ANSWERS

Part I

Project 1

1. Circle
2. Correct
3. Circle
4. Correct
5. Circle
6. Correct
7. Correct
8. Correct
9. Circle
10. Circle

Project 2

1. Taken
2. Conferred
3. Runner
4. Abilities
5. Crying
6. Agreeable
7. Lively
8. Attorneys
9. Improvement
10. Planned

Project 3

1. Monkeys
2. Years
3. Pushes
4. Echoes
5. Babies

Part II

1. We are glad you are feeling better, Mrs. Parsons.
2. Please order the following supplies: pencils, paper clips, and erasers.
3. The up-to-date report is most impressive.
4. Mary has gone to Chicago; however, she will return in time for the meeting.
5. Barry's car--the one on the left--has a flat tire.
6. We will pick you up at 7:45.
7. Before leaving, please straighten your room.
8. Tim's bike is blue, and Joe's is red.
9. Sally will bake a cake, and Debbie will make a salad.
10. The principal, Ms. Goodwin, will speak to the class today.

Part III

1. Governor Wilson gave a very interesting speech on Wednesday.
2. On Tuesday, April 23, we will go on a field trip to Dallas.
3. John Moore, M.D., will speak to our science class today.
4. Our new Xerox is a very good copier.
5. Martha said, "Don't talk so loud."
6. Alaska is the largest state.
7. Is Labor Day always on a Monday?
8. My friend, Peggy, will arrive from Atlanta on American Airlines.
9. My favorite classes are English and history.
10. Thanksgiving is always on a Thursday.

Part IV

Project 1

1.
2. C
3.
4. C
5. C
6.
7.
8.
9. C
10.

Project 2

1. Are
2. Is
3. Is
4. Was
5. Are
6. Was
7. Is
8. Is
9. Was
10. Were

Project 3 Evaluated to the satisfaction of the instructor.

RESOURCES

TEXT/WORKBOOKS

A BETTER WAY OF WRITING
South-Western Publishing Co.

BASIC ENGLISH FOR BUSINESS COMMUNICATIONS
Glencoe Publishing Co.

BASIC LETTER AND MEMO WRITING
South-Western Publishing Co.

BUSINESS COMMUNICATION
South-Western Publishing Co.

BUSINESS COMMUNICATIONS-A PROBLEM-SOLVING APPROACH
Gregg Division/McGraw-Hill Book Co.

BUSINESS CORRESPONDENCE/30
Gregg Division/McGraw-Hill Book Co.

BUSINESS ENGLISH/30
Gregg Division/McGraw-Hill Book Co.

BUSINESS ENGLISH AND COMMUNICATION
Gregg Division/McGraw-Hill Book Co.

BUSINESS ENGLISH ESSENTIALS
Gregg Division/McGraw-Hill Book Co.

BUSINESS LETTERS AND REPORTS
Bobbs-Merrill Publishing Co.

BUSINESS LETTER WRITING
Instructive Materials Laboratory
Ohio State University

THE BUSINESS OF ORAL COMMUNICATION
South-Western Publishing Co.

BUSINESS SPELLING AND WORD POWER
Bobbs-Merrill Publishing Co.

COMMUNICATIONS AT WORK
South-Western Publishing Co.

COMMUNICATION SKILLS FOR THE PROCESSING OF WORDS
South-Western Publishing Co.

COURTESY UNDER PRESSURE
South-Western Publishing Co.

DEVELOPING LISTENING SKILLS
Gregg Division/McGraw-Hill Book Co.

EFFECTIVE BUSINESS COMMUNICATION
South-Western Publishing Co.

EFFECTIVE ENGLISH FOR BUSINESS COMMUNICATIONS
South-Western Publishing Co.

ORAL AND WRITTEN COMMUNICATIONS
Career Aids, Inc.

TYPING MAILABLE LETTERS
Gregg Division/McGraw-Hill Book Co.

UNDERSTANDING HUMAN COMMUNICATIONS
Adler, Rodman, Holt, Rinehart and Winston

WRITING CLEARLY: CONTEMPORARY APPROACH
Charles E. Merrill Publishing

WRITING, LISTENING, SPEAKING FOR BUSINESS AND PROFESSIONAL STUDENTS
Wadsworth Publishing

SOFTWARE

COMMUNICATIONS: YOUR BRIDGE TO OTHERS
Disk; Apple II, IIe, or IIc
IBM PC
Career Aids, Inc.

ON THE JOB COMMUNICATION
Disk; Apple II, IIe or IIc; TRS-80
Model III or IV
Teacher's guide
Career Aids, Inc.

PRACTICE SETS

BUSINESS COMMUNICATIONS
Activities book and teacher's guide
Glencoe Publishing Co.

CORRESPONDENCE
Film trainee work plan
Prentice-Hall Media

PUBLIC SPEAKING
Business Professionals of America Official Guide

SPEAKING TECHNIQUES
Business Professionals of America Official Guide

WRITTEN COMMUNICATIONS
Business Professionals of America Official Guide

MEDIA

BASIC WRITING SKILLS FOR BUSINESS
4 filmstrips and cassettes, 16 duplicating masters, teacher's guide, resource manual, and storage container.
Career Aids, Inc.

BODY LANGUAGE
Career Aids, Inc.

COMMUNICATIONS: YOUR BRIDGE TO OTHERS
Career Aids, Inc.

COMPETENCY SKILLS: WRITING ON THE JOB
Filmstrips, cassettes, library kit, teacher's guide
Career Aids, Inc.

DEVELOPING AND IMPROVING WRITTEN COMMUNICATIONS: WRITING BUSINESS LETTERS
An Audiovisual Package
Educational Development and Training Center, East Texas State University

THE LISTENING INVENTORY
Career Aids, Inc.

PERSON TO PERSON: LEARNING TO COMMUNICATE
Career Aids, Inc.

WRITTEN COMMUNICATIONS SERIES
Slide/tape, guide, and assignments
Instructional Materials Lab
University of Missouri

COMPETENCY CHECKLIST

ESSENTIAL ELEMENTS: 75.87 (d)/(m)(5)(D)

The student shall be provided opportunities to identify and use proper language usage skills in business.

OBJECTIVE:	Students will demonstrate proper proper language usage skills in business.	MASTERY	NON-MASTERY
1.	Apply spelling rules.	______	______
2.	Identify and correctly use various punctuation marks.	______	______
3.	Identify and apply rules for capitalization.	______	______
4.	Identify and apply rules for writing sentences.	______	______
		______	______
		______	______

STUDENT NAME________________________________

SECTION IV: COMMUNICATING EFFECTIVELY

UNIT I: TRADITIONAL AND ELECTRONIC MAIL

UNIT OBJECTIVE: Students will be able to identify the classes of mail, recognize the steps in processing incoming and outgoing mail, and identify types of electronic mail.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Identify mail handling terminology.
2. Classify the various types of mail.
3. Identify various postal services.
4. Identify procedures involved in processing incoming and outgoing mail.
5. Identify the various types of electronic mail.

FOCUS: Understanding and applying the procedures and principles associated with efficient mail handling is one of the important operations within an organization.

TERMINOLOGY

Annotate	To provide explanatory marks or notes in the margins of correspondence in order to assist the employer.
Bulletin board	An electronic messaging system for common or special interest groups.
Certificate of mailing	Certificate that is completed by the postal service at the time of mailing to prove than an item was mailed.
Certified mail	Special mail service for first-class mail which provides receipts for the sender proving that the item was mailed and delivered; no insurance coverage provided.
Courier/messenger service	A personal delivery service that can guarantee overnight delivery of documents and packages within the United States.
Domestic mail	Mail sent and delivered within the United States.
Electronic mail	The transmission and storage of messages from the sender to the receiver.
Facing mail	Arranging the envelopes so that all of the addresses face forward and read from left to right.
Facsimile machine	A device that electronically scans a printed page and converts the images into analog signals sent to another facsimile machine. The receiving machine reverses the conversion process and prints the images on blank paper.
Insured mail	Mail service which allows the sender to insure third- or fourth-class mail for amounts up to $4,000 against loss or damage. If a parcel is lost or damaged, the postal service will reimburse the sender the value of the merchandise or for the amount insured, whichever is smaller.
International mail	Mail that goes outside the United States (except mail destined for Canada or Mexico, which use domestic mail rates).
Interoffice mail	All the mail exchanged between people who work at the same location or at the company's nearby branch.
Mail register	Recordkeeping form used to record the receipt of special incoming mail and expected items.
Mailgram	Message sent by Western Union to the local post office and delivered with the regular mail.

Modem	A device that converts digital signals to analog signals, and analog back to digital so that computers can communicate over telephone lines.
Personal mail (confidential)	Mail which is intended only for a specific individual.
Postage meter	A machine, licensed by the U. S. Postal Service, which prints postage fees on gummed strips of paper that are used as stamps.
Priority mail	First-class mail weighing over 12 ounces.
Recalling mail	Upon prompt completion of U. S. Government Form 1509 by the sender, the postal service will try to have a piece of mail returned to the sender if it has not already been delivered.
Registered mail	Provides protection for sending valuable or important first-class or priority items.
Return receipt	Proof of delivery.
Rough-sorting	Sorting the mail according to local and out-of-town destinations.
Routing slip	A sheet of paper attached to a mail item which lists the names of the persons to whom the item will be distributed.
Second-class	Class of mail available only to publishers and registered news agents for sending out newspapers, periodicals, magazines, etc.
Special delivery	Service which provides any class of mail with the same prompt delivery time as first-class mail, and includes delivery by messenger during certain hours within certain distances.
Special handling	Less expensive service than special delivery and provides faster handling for third- and fourth-class mail.
Telecommunications	Any communication requiring the use of telephone or telegraph lines, or satellite networks.
Third-class	Mail items which weigh less than 16 ounces and are not included in first- or second-class mail; usually includes advertisements, merchandise, books, and catalogs.
Tracing Mail	Upon completing the appropriate form, the postal service will try to locate mail which has not been delivered within a reasonable time; however, it is very difficult to locate mail unless it was registered, insured, or certified.

User groups	Organizations of computer users that run many of the available bulletin boards.
Voice mail	A link between telephones and voice-activated computers.
ZIP Code	The five- or nine-digit code used by the postal service to speed up the processing of mail; the code makes it possible for the mail to be sorted by machine.

UNIT OVERVIEW

I. Classification of mail and types of postal services

A. Classification of mail

1. First-class

a. Items weighing up to and including 12 ounces.

b. Sent by air service or the fastest means available.

c. Includes the following types of mail:

(1) Letters

(2) Post cards

(3) Bills

(4) Checks

2. First-class zone-rated (priority) mail

a. Weighs over 12 ounces.

b. Amount of postage is figured by the weight and destination.

3. Second-class mail

a. Available only to publishers and registered news agents.

b. Includes the following types of mail:

(1) Newspapers

(2) Periodicals

(3) Magazines

c. Second-class rates are lower than both third- and fourth-class rates.

4. Third-class mail

a. Items weigh less than 16 ounces and are not first- or second-class.

b. Slower than other types of mail.

c. Includes the following types of mail:

(1) Advertisements

(2) Merchandise

(3) Books

(4) Catalogs

(5) Other printed material

d. Sometimes known as junk mail.

5. Fourth-class mail (parcel-post)

a. Items weighing 16 ounces and over that are not included in first-, second-, or third-class mail.

b. Rates are determined by:

(1) Weight of the package.

(2) Distance the package will travel.

c. Parcel-post packages may be opened by the postal service for inspection.

6. Mixed classes of mail may be used when sending two pieces of mail from different classes as a single mailing so that the items arrive at the same time.

7. International mail is all mail that goes outside the United States (except mail destined for Canada, Mexico, or other countries using domestic mail rates).

B. Special postal services offered by the United States Postal Service

1. Express mail--next day, custom-designed, international, same-day airport service.

2. Special delivery--mail is delivered by a messenger as soon as it is received at the post office of the addressee.

3. Registered mail provides insurance protection of merchandise for more than $200 and a receipt for the sender.

4. Insured mail covers printed matter or merchandise that is sent third-class, fourth-class, or air parcel-post.

5. Certified mail provides the sender with a mailing receipt and a record of delivery at the addressee's post office.

6. Collect-On-Delivery or COD mail requires the amount due on the mail plus postage up to $300.

7. Money orders are a safe way to send money through the mail.

8. Return receipt is a proof of delivery and is available on insured mail of more than $15 value, and on certified and registered mail.

9. Special handling provides for the most efficient handling and transportation available. Used when a sender wishes to have a package reach its destination more quickly but usually not as quickly as special delivery.

10. Courier and messenger services ensure delivery by a specific time.

II. Incoming and outgoing mail

A. Incoming mail should be processed in a timely organized manner.

1. There are various steps involved in processing mail. Where to begin depends upon the established mail handling procedures and the size of the organization.

a. Gather necessary supplies:

(1) Letter opener

(2) Paper clips

(3) Tape

(4) Date stamp and ink pad

(5) Pens or pencils

(6) Mail register

(7) Routing slips

b. Classify the mail by these categories:

(1) Telecommunications, such as telegrams, mailgrams, telex, and computer printout sheets

(2) Special delivery, certified, or registered mail

(3) Personal mail

(4) First-class mail, including bills and statements

(5) Interoffice mail

(6) Newspapers and periodicals

(7) Booklets, catalogs, and advertising materials

(8) Packages

c. Open the mail by hand or with electric mail opener.

(1) To reduce the possibility of cutting the contents, tap the lower edge of the envelope so that the contents will drop to the bottom of the envelope.

(2) Seal any letters that are opened by mistake with transparent tape and write "opened by mistake" and your initials on the envelope.

(3) Never open mail items marked Personal or Confidential.

d. Remove and inspect the contents being careful not to cut or tear contents.

(1) Open envelopes with a letter opener.

(2) Carefully remove all items contained in the envelope.

(a) Examine each letter for the sender's address, date, and signature of sender.

(b) Verify the enclosures received with the enclosure notation on the letter.

1) If there is no enclosure notation, scan the letter to verify that all of the appropriate enclosures were received.

2) Compare the amount enclosed with the amount of cash, checks, or money orders mentioned in the letter or invoice.

(3) Use a paper clip to attach enclosures to the document.

(4) When an enclosure is missing:

(a) Recheck envelope and attach it to the back of the document.

(b) Make a notation on the document to indicate that the enclosure was not attached.

(c) Contact the sender concerning the missing enclosure.

(5) Discard the envelope if all information was included.

e. The date and time may be needed for legal significance; therefore, it is generally stamped or written on each document received.

f. Record any special mail in the mail register.

(1) Expected mail includes those mail items expected by a specific date.

(2) Insured mail, special delivery mail, and registered mail should also be recorded in the mail register.

(3) Incoming mail that needs to be distributed to several people.

g. Annotate mail to save time for the employer.

(1) Check with employer for his/her preference and what procedures to follow.

(2) Scan the correspondence, reading quickly.

(a) Concentrate on the main purpose of the letter and the action that should be taken.

(b) Underline words or phrases that stress key points.

(c) Make notes in the margins which might be helpful to the employer.

(d) Do not read and annotate personal correspondence.

h. Attach previous correspondence or material to the letter if it will help your employer in responding, or if a reference was made to it.

i. Make notes on your calendar if a request was made for an appointment, or if there was a reference to a due date.

j. Sort correspondence into three stacks:

   (1) Mail for your employer

   (2) Mail requiring someone else's attention

   (3) Mail requiring your attention

2. Process other mail.

   a. Advertisements mail should be opened and organized into stacks based on who will receive the mail.

   b. Newspapers and periodicals should be unwrapped and flattened.

   c. Open packages that are not marked "personal" or "confidential" checking its contents against the enclosed packing slip or invoice.

3. Organize mail.

   a. Sort mail into three stacks based on importance.

      (1) Urgent mail includes any items requiring immediate attention, such as airmail, certified, or registered mail. It is placed on the top of the stack so it is the first thing the employer sees.

      (2) As-soon-as-possible (ASAP) includes any items which should be handled before the end of the day, such as first-class mail, personal and confidential mail, and memorandums.

      (3) Routine mail includes all other classes of mail which may be dealt with as time permits, such as bills, reports, advertising, newspapers, routine inquiries, etc.

   b. Route mail by using routing slips and photocopies to increase efficiency in distributing the mail.

B. Processing outgoing mail

   1. Procedures of handling outgoing mail varies with the size of the organization.

      a. In a small office, the secretary usually is responsible for the mail.

      b. Large offices usually have a mail department that processes outgoing mail.

2. Processing mail

   a. Inspect the mail for a signature, proper enclosures, correct return address, and special notations.

      (1) A signature should always be present.

      (2) All enclosures should be included either behind or in front of the letter. If the enclosure is missing, bring it to the attention of the person or department sending the letter.

      (3) The inside address should agree with the address on the envelope.

      (4) Special notations, such as Special Delivery, should be noted on the outside of the envelope.

   b. Interoffice mail is routed within the company.

   c. Folding and inserting mail is a very important step in handling outgoing mail.

      (1) Business envelopes come in two sizes:

         (a) The small envelope is called the No. 6 and measures 6 1/2" x 3 5/8".

         (b) The large envelope, or No. 10, measures 9 1/2" x 4 1/8".

      (2) Window envelopes are used to eliminate the need to retype the address.

      (3) Folding procedures for a standard sheet of 8 1/2" x 11" paper inserted into a No. 6, small envelope:

         (a) Place the letter face up on the desk; fold the bottom edge up to 1/4" from the top edge and crease the page.

         (b) Fold the right edge toward the left a little less than one-third the width of the page, then crease.

         (c) Fold the left edge to 1/4" from the right crease; crease again.

         (d) Insert the last creased edge first.

(4) Folding procedures for a standard sheet of 8 1/2" x 11" paper inserted into a No. 10, large envelope:

(a) Fold the bottom edge slightly less than one-third up toward the top, then crease the page.

(b) Fold the top edge down to about 1/4" beyond the crease, then crease again.

(c) Insert the last creased edge first.

(5) Folding procedures for a standard sheet of 8 1/2" x 11" paper inserted into a window envelope:

(a) Fold the bottom edge one-third up toward the top and crease the page.

(b) Turn the letter face down with the crease away from your body; then, bring the bottom edge up the crease and fold.

(c) Insert the letter in the envelope so that the inside address shows through the window.

(6) Fold enclosures with the letter so that they will be taken out of the envelope with the letter.

d. Stamping/metering the mail

(1) Stamping several pieces of mail by hand can be accomplished easily by arranging five or more envelopes on top of each other and exposing the upper right corner of each envelope.

(2) Using pre-stamped envelopes and cards is a means of saving time in processing mail.

(3) Metered mail is the most efficient means of stamping mail.

e. Automated mail equipment is used in large post offices to speed mail to its destination.

(1) An optical character reader (OCR) may be used. The address format includes all capital letters, a blocked left margin, no punctuation, use of the two-letter state abbreviation, and leaving two spaces between state and ZIP Code.

(2) ZIP Codes speed up the processing of mail.

(a) Standard five digit zip explanations:

1) First digit designates a particular geographic location.

2) The next two digits represent the sectional center or large city in the area.

3) The last two digits represent the local post office of destination.

(b) Expanded ZIP Code--nine-digit ZIP Code is not required at this time but is a voluntary program designed to promote increased automation in the processing of mail.

1) The first two numbers of the extension after the hyphen indicate a certain sector of the city.

2) The last two numbers indicate the delivery segment--certain streets, floors, or departments.

(c) If the ZIP Code is not known, it should be looked up in the National ZIP Code Directory.

f. Rough sorting and facing mail

(1) Rough sorting is sorting the mail according to local and out-of-town destinations.

(2) Facing mail is arranging the envelope so that all of the addresses face forward and read from left to right.

III. Electronic or E-mail is the electronic transmission and storage of messages from the sender to the receiver.

A. Advantages and disadvantages of using E-mail

1. Advantages of using E-mail

a. Messages can be delivered at a predictable time.

b. E-mail cuts communication time from days to minutes.

c. E-mail can permanently store messages and then easily recall them.

d. Each member has a "mailbox" in which others may leave messages that will remain until the owner reads them and chooses to erase them.

e. This is valuable for people who travel because they can access their E-mail from any terminal.

f. Messages can be stored and forwarded to a computer at another location.

g. The message, as you typed it, can be read immediately or as soon as your addressee is on-line.

2. Disadvantages of using E-mail

   a. E-mail may be sent electronically, but when a computer is not available or the receiver does not use the same service, it is delivered as a mailgram or as an MCI laser-printed message.

   b. Digital code cannot be read by a computer; therefore, it is received as a paper image.

B. Forms of electronic mail

1. A telegram is probably the oldest type of electronic mail. Samuel Morse developed the telegraph in 1835.

2. Mailgrams are messages that are transmitted to the local post office from Western Union and are printed at the destination. The mailgram is delivered the next day with the regular mail.

3. Telex/TWX are both operated by the Western Union Telegraph Company. They are similar to the conventional telephone network, but they use teleprinters and hardcopy output instead of telephones and voice communication.

4. Facsimile allows an original document to be reproduced at remote locations.

5. Communicating word processors expand E-mail's capability. They simplify composing and editing draft messages.

6. Computer hardware and software-based systems are used in the preparation, transmission, storage, and retrieval of messages.

C. Bulletin boards

1. Bulletin boards are electronic messaging system services for common or special interest groups. It can be compared with a cork bulletin board, containing scraps of paper with messages on them.

a. It is a place where messages are posted and picked up.

b. It is a place where electronic messages are posted.

c. A bulletin board consists of a computer and disk drive where messages or files are stored.

2. Bulletin board systems (BBS) are considered a specialized form of electronic mail. Some other uses of bulletin boards are:

a. Communications between different offices and while traveling.

b. Billboards of information and announcements.

3. Types of information found.

a. A typical bulletin board system will offer a menu of varied topics ranging from technical help and software updates, to public domain software, and even games.

b. Most bulletin boards will have a schedule of news, events, or messages of interest to members.

c. Other computer and noncomputer information available:

(1) Job search resources

(2) Roots of your family tree

(3) Jobs for performing artists

(4) Files related to patents, trademarks, and copyrights

4. Access to user group bulletin board systems and many other systems are free, but one must become a member in order to upload and download files or to access certain files from the menu. However, in some cases only members of the user group are eligible to join the bulletin board.

D. Facsimile

1. Facsimile transmission is sending images of documents by means of radio waves or telephone lines.

a. The images are stored digitally in the computer's memory.

b. Images can be sent and received using modems.

c. The computer's graphics or laser printer is used for output.

2. A fax machine is actually a printer, scanner, phone, and copier combined into one machine.

    a. The major component of a fax machine is a scanner, which converts an image into an encoded audio signal.

    b. An image is sent over telephone lines to the receiver.

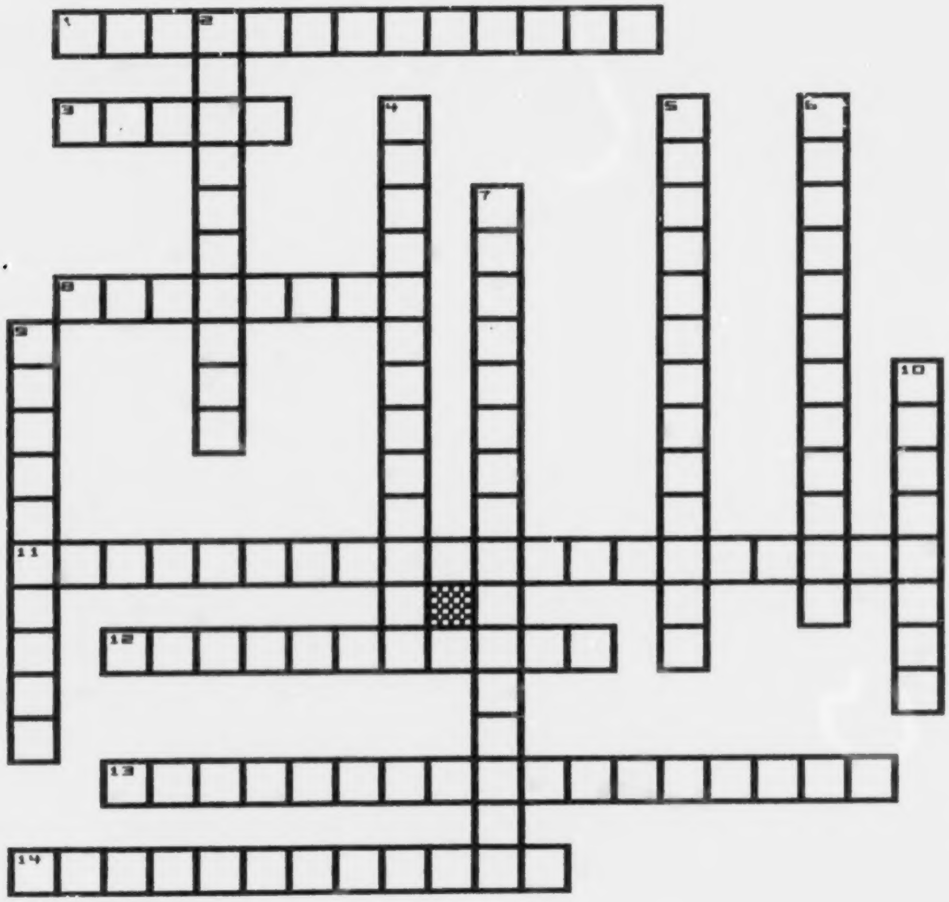
    c. The image is demodulated and impressed on paper by one of several techniques.

    d. Scans a page in lines--closeness of the lines determine the resolution--which establishes the print quality.

3. Recently, the price of facsimile machines has made them attractive to small businesses and individual users, and some now even plug into a microcomputer.

4. Standard features and capabilities of facsimile machines include telephone functions that have speed and memory dialing, delayed and automatic redial, storage, broadcasting, and polling.

ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE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ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE CLUES

ACROSS CLUES

1. Proof of delivery.

3. A device that converts digital signals to analog signals, and analog back to digital so that computers can communicate over telephones lines.

8. To provide explanatory marks or notes in the margins of correspondence in order to assist the employer.

11. Certificate that is completed by the postal service at the time of mailing to prove that an item was mailed.

12. Mail service which allows the sender to insure third- or fourth-class mail for amounts up to $40,000 against loss or damage. If a parcel is lost or damaged, the postal service will reimburse the sender for the value of the merchandise or for the amount insured, whichever is smaller.

13. Mail that goes outside the United States (except mail destined for Canada or Mexico, which use domestic mail rates).

14. Recordkeeping form used to record the receipt of special incoming mail and expected items.

DOWN CLUES

2. Organizations of computer users that run many of the available bulletin boards.

4. An electronic messaging system for common or special interest groups.

5. Special mail service for first-class mail which provides receipts for the sender proving that the item was mailed and delivered; no insurance coverage provided.

6. Mail sent and delivered within the United States.

7. A device that electronically scans a printed page and converts the images into analog signals sent to another facsimile machine. The receiving machine reverses the conversion process and prints the images on black paper.

9. Mail items which weigh less than 16 ounces and are not included in first- or second-class mail; usually includes advertisements, merchandise, books, and catalogs.

10. Message sent by Western Union to the local post office and delivered with the regular mail.

ACTIVITY 2: MAIL CLASSIFICATIONS

INSTRUCTIONS: **List the four major classifications of mail and provide a characteristic of each.**

1.

2.

3.

4.

ACTIVITY 3: ADDITIONAL POSTAL SERVICES

INSTRUCTIONS: **Using the samples provided on the bulletin board, name the types of postal services involved.**

1.

2.

3.

4.

5.

6.

7.

8.

9.

ACTIVITY 4: PROCESSING INCOMING AND OUTGOING MAIL

Project 1

INSTRUCTIONS: List the supplies needed for processing mail.

1.
2.
3.
4.
5.
6.
7.

Project 2

INSTRUCTIONS: List the steps involved in processing mail.

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

ACTIVITY 4 (Continued)

Project 3

INSTRUCTIONS: List four items that should be checked when inspecting outgoing mail.

1.

2.

3.

4.

Project 4

INSTRUCTIONS: Correctly fold and insert mail in a small envelope, a large envelope, and a window envelope following your teacher's instructions.

Project 5

INSTRUCTIONS: Using your own nine-digit ZIP Code, tell what each number of the ZIP Code signifies.

ACTIVITY 5: TYPES OF ELECTRONIC MAIL

Project 1

INSTRUCTIONS: List five advantages and two disadvantages of using electronic mail.

Advantages:

1.

2.

3.

4.

5.

Disadvantages:

1.

2.

ACTIVITY 5 (Continued)

Project 2

INSTRUCTIONS: List three uses for a bulletin board system.

1.

2.

3.

SECTION IV: COMMUNICATING EFFECTIVELY

UNIT II: TELEPHONE SKILLS

UNIT OBJECTIVE: Students will be able to demonstrate effective listening skills and use proper business techniques when using the telephone.

STUDENT COMPETENCIES: After completing this unit the student will be able to:

1. Properly define telephone terminology.
2. Demonstrate characteristics of good listening skills.
3. Demonstrate positive techniques of handling incoming telephone calls.
4. Demonstrate positive techniques of placing outgoing telephone calls.
5. Compare the various parts of the telephone directory.
6. Demonstrate the ability to take messages.

FOCUS: The telephone is a vital link between business and the public. Companies expect proper telephone skills of the beginning worker.

TERMINOLOGY

Bulletin board	A computer with software and storage dedicated to communicating with other computers over telephone lines.
Call forwarding	A telephone feature available for purchase that allows the user to enter a code that will automatically forward all incoming calls to another phone number.
Call waiting	Special telephone service available for purchase that provides a short tone signal indicating that a second call is on the line while you are on the phone with the first caller. The first caller may be put on hold and the second call answered. This prevents you from missing any calls because your phone is busy.
Collect call	Long distance telephone call for which the person or firm receiving the call agrees to pay the charge for the call.
Conference call	A telephone call that allows 2-50 people in different geographic locations to be connected on one telephone line simultaneously so they can participate in the same conversation.
Credit card call	Enables the card holder to make calls from any telephone in the United States or Canada to any other city, state, or country.
Direct-dial calls	Method of placing long-distance telephone calls by following specific dialing instructions that do not require the assistance of an operator.
E-mail	The transmission of data for electronic storage and subsequent retrieval.
Inward WATS	Special service available for purchase permitting station-to-station, long-distance calls to be made by an organization without charge to the caller.
Key system	A type of telephone system in which the telephones have several buttons, or keys, that light up when the phones are in use.
Long-distance file card	The form used to record specific information regarding a long-distance telephone call.
Operator-assisted calls	Long-distance telephone call which requires assistance from the operator to complete the call.
Paging device	A small, portable device that alerts the person carrying it when someone is trying to reach her or him by telephone; often called a "beeper."

Person-to-person call	An operator-assisted, long-distance telephone call before which the caller requests a particular person or extension. Charging begins when conversation with the person called begins; rates are higher than those for station-to-station calls. Dial 0 + area code + telephone number.
Private branch exchange (PBX)	A telephone system consisting of an operator-controlled switchboard that is the central switching station for all the telephone extensions in an office. Some PBXs are automated.
Register of long-distance calls	Form used to record information pertaining to all long-distance telephone calls placed by an organization or department in a one-month period.
Speakerphone	A combination microphone and loudspeaker device attached to a telephone and designed so that many people can hear a telephone call together.
Station-to-station call	Long-distance telephone call which must be dialed directly; charges begin when the telephone is answered. The caller is charged for the call even if the person with whom he or she wishes to speak is not available. Rates are lower than calls that require operator assistance. Dial 1 + area code + telephone number.
Telecommunications	The electronic transmission of information, whether it is voice or data.
Teleconference	A conference conducted over the telephone among people in widely separated locations, or a conference among people at different locations linked electronically.
Teletypewriter	A keyboard device with a printer that can send and receive messages over telephone lines, or a special machine, a form of telegraph similar to a typewriter, that is capable of both sending and receiving telegraphic messages.
Telex	Worldwide teletypewriter networks.
Wide area telecommunications service (WATS)	A special service available for purchase allowing a fixed charge to be paid for any number of long distance calls within a WATS area, rather than paying for each long distance call individually.

UNIT OVERVIEW

I. Listening Skills

A. Hearing and listening.

1. Hearing means being able to detect sounds.

2. Listening is getting meaning and understanding from sounds. Listening is a skill that has to be developed.

B. Good listening techniques

1. Get ready to listen.

a. Sit up straight.

b. Be prepared to take brief notes.

2. Give speaker complete attention.

a. Maintain eye contact.

b. Concentrate on speaker's ideas.

c. Do not daydream.

d. Do not talk.

e. Do not sketch or doodle.

3. Concentrate on speaker's body language.

a. Watch facial expression.

b. Observe gestures.

c. Detect tone of voice.

4. Listen for main points and ideas.

a. Listen for repeated points.

b. Briefly write down each point.

5. When speaker is finished, restate ideas or go over to help remember ideas.

6. Ask questions.

II. Telephone techniques

- A. Projecting a good telephone image
    1. The caller develops an impression of you based on what you say and how you say it.
    2. The tone of the voice gives meaning to what is said.
    3. Visualize the caller.
- B. Creating a good telephone image
    1. Talk to the person on the phone, not to the telephone itself.
    2. Put a smile in your voice by using polite phrases.
    3. Use the caller's name as often as possible.
    4. Be a good listener.
    5. Take accurate notes.
    6. Avoid talking to others while a person is waiting on the line.
    7. Use businesslike expressions instead of slang.
    8. Avoid using technical expressions which may confuse the caller.
    9. Always acknowledge requests.
    10. Be tactful.
    11. Return calls promptly.
    12. Apologize for any errors or delays.
- C. Developing a helpful telephone voice
    1. Talk directly into the receiver.
    2. Speak clearly and distinctly. Do not chew, hum, eat, or smoke when talking on the telephone.
    3. Speak at a normal rate of speed.
    4. Tone of voice should be varied.
    5. Use the phonetic alphabet in spelling names to promote better comprehension.

D. Phonetic alphabet

Alice for A
Bertha for B
Charles for C
David for D
Edward for E
Frank for F
George for G
Henry for H
Ida for I
James for J
Kate for K
Louis for L
Mary for M
Nellie for N
Oliver for O
Peter for P
Quaker for Q
Robert for R
Samuel for S
Thomas for T
Utah for U
Victor for V
William for W
X-ray for X
Young for Y
Zebra for Z

III. Handling incoming telephone calls

A. Establishing good office organization

1. Organize the telephone work area.
    - a. Secure pens, pencils, message pads, and telephone directories.
    - b. Place frequently used forms in a convenient location.
    - c. Maintain a list of frequently called numbers.
    - d. Designate a place for leaving messages.
    - e. Make sure you know how to use telephone services and equipment correctly.
2. Obtain reference materials concerning frequently discussed topics.

B. Answering procedures

1. Answer the telephone promptly, preferably after the first ring.
2. Depress the proper line button before lifting the receiver.
3. Identify the name of your company and department first, then give your name.
4. Speak clearly and distinctly.
5. Obtain the name of the caller and the nature of the call for your employer so he/she will be able to respond more intelligently.
6. Process the call
    - a. Explain when you leave the line, and return promptly.
        - (1) Tell the caller why you must leave the line.

        (2) Give the caller the option of waiting or having you return the call.

        (3) Use the **Hold** button, if available, or carefully lay the handset down on the table.

    b. Return to the line frequently to give the caller a progress report.

    c. Get the caller's attention in a friendly manner when you return.

7. Avoid long, detailed conversations.

8. Give an appropriate closing.

9. Let the caller hang up first.

10. Replace the receiver gently and securely.

C. Taking messages

1. Keep a message pad readily available.

2. Be sure to include the following information:

    a. Time and date of the call

    b. Complete name of caller and the company represented.

    c. Telephone number of the caller, including the area code and extension

    d. What action to take

    e. Important details of the message

    f. Your initials or signature

3. Read the message back to the caller to make sure the message is correct.

4. Record all telephone calls, even if the call need not be returned.

5. Leave the messages in a specified place on your employer's desk.

6. Emergency messages should be delivered in person if necessary.

IV. Placing outgoing telephone calls

- A. Planning calls
  1. Write down the name of the person or organization being called.
  2. Write down the information needed and the questions to be asked.
  3. Obtain the telephone number from a personal phone index, the telephone directory, other special purpose directories, or through the use of directory assistance.
  4. Consider the time the call is being made.
     - a. Call when the party is most likely to be available.
     - b. Do not place a call during regularly scheduled lunch hours unless the call has been previously arranged.
     - c. Consider time zones when placing both domestic and international calls.
- B. Placing calls
  1. Carefully dial your party.
  2. Identify yourself immediately.
  3. State the purpose of your call, and provide the name of the person with whom you wish to speak.
  4. Make sure the information you receive is complete so that you will not have to call again.
  5. Thank the party for the information.

V. Using the telephone directory and directory assistance

- A. Purposes of directories
  1. Provide telephone numbers to be called.
  2. List businesses by type.
  3. Furnish a source to check names.
  4. List the types of and uses for available telephone services.

B. Parts of the telephone directory (These may be completely separate directories.)

1. Introductory pages generally contain useful information.
   a. Provide instructions for making emergency calls, local and long-distance calls, and service calls and complaints.
   b. Display an area code/time zone map and a brief listing of area codes for major cities.
   c. Include ZIP codes for surrounding areas.
2. Alphabetic pages/white pages
   a. Contain an alphabetic listing of all persons and businesses that are telephone subscribers in a specific service area.
   b. Use name guides printed in large type at the top of each directory page, giving the first and last name listed on the page.
3. Classified section/yellow pages
   a. Arranged alphabetically by product or service.
   b. Contains an alphabetic listing of every business telephone subscriber within each subject.
   c. The index at the front of the directory assists in locating the proper headings.
   d. The index may be bound separately or placed at the back of the alphabetical directory.

C. Personal directory

1. Contains names and telephone numbers of frequently called persons or businesses.
2. It is maintained and kept up to date by the secretary.

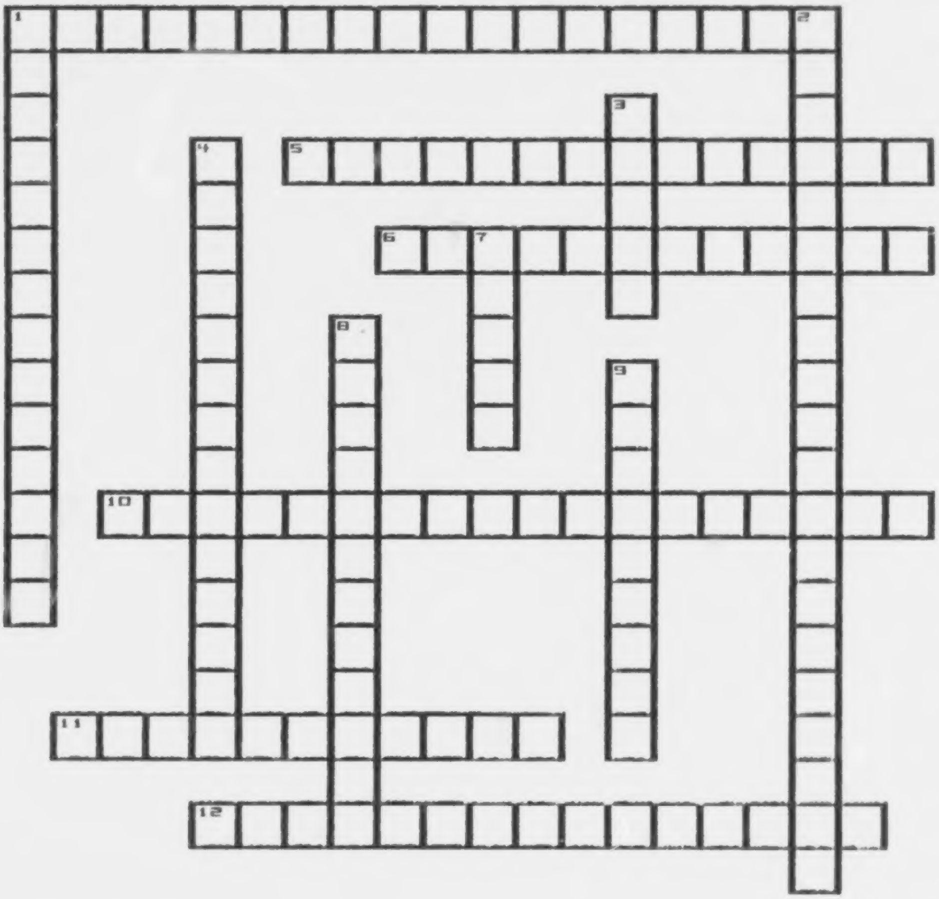
D. Directory assistance

1. The number for local directory assistance is 1411 in most areas.
2. For out-of-town directory assistance, dial the appropriate area code plus 555-1212.
3. A minimal charge is added to your phone bill for each time this service is used.

VI. Logging long-distance telephone calls

- A. Telephone records are needed for a variety of reasons.
    1. Indicate proper reimbursement for long-distance calls.
    2. Designate proper charging for long-distance calls.
    3. Records are helpful in double-checking the accuracy of telephone bills, estimating telephone expenses, or for justifying telephone expenses.
- B. The following information should be included:
    1. Date and time of the call
    2. The caller's name
    3. Telephone number called
    4. City and state called
    5. Name of person contacted
    6. Cost or approximate length of call
    7. Purpose of the call
    8. Initials of the person taking the call
- C. Using a long distance file card as a register
    1. The cards are filed chronologically.
    2. Information from the cards is transferred to the register at the end of the month.
    3. Calls are listed on the cards in chronological order.

ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE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ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLES CLUES

ACROSS CLUES

1. A conference conducted over the telephone among people in widely separated locations, or a conference among people at different locations linked electronically.

5. A keyboard device with a printer that can send and receive messages over telephone lines, or a special machine, a form of telegraph similar to a typewriter, that is capable of both sending and receiving telegraphic messages.

6. A combination microphone and loud speaker device attached to a telephone, designed so that many people can hear a telephone call together.

10. An operator-assisted, long-distance telephone call before which the caller requests a particular person or extension. Charging begins when conversation with the person called begins; rates are higher than those for station-to-station calls. Dial 0 + area code + telephone number.

11. Special telephone service available for purchase that provides a short tone signal indicating that a second call is on the line while you are on the phone with the first caller. The first caller may be put on hold and the second call answered. This prevents you from missing any calls because your phone is busy.

12. Method of placing long-distance telephone calls by following specific dialing instructions that do not require the assistance of an operator.

DOWN CLUES

1. A conference conducted over the telephone among people in widely separated locations, or a conference among people at different locations linked electronically.

2. Long-distance telephone call which must be dialed directly; charges begin when the telephone is answered. The caller is charged for the call even if the person with whom he or she wishes to speak is not available. Rates are lower than calls that require operator assistance. Dial 1 + area code + telephone number.

3. Worldwide teletypewriter networks.

4. Enables the card holder to make calls from any telephone in the United Stated or Canada to any other city, state, or country.

7. The transmission of data for electronic storage and subsequent retrieval.

8. A small, portable device that alerts the person carrying it when someone is trying to reach her or him by telephone; often called a "beeper.

9. A type of telephone system in which the telephones have several buttons (or keys) that light up when the phones are in use.

ACTIVITY 2: LISTENING SKILLS

Project 1

INSTRUCTIONS: **Gossip. The teacher will whisper a sentence into one student's ear. Each student whispers what he/she hears into the next person's ear until all have heard the sentence. The last student repeats the sentence. The object is to realize how things change as they are passed from person to person.**

Project 2

INSTRUCTIONS: **Your teacher will read aloud to you a short detailed story and then ask specific questions concerning the story to see how much you "heard."**

Project 3

INSTRUCTIONS: **Working with a partner, listen to three minutes of a radio news broadcast. When finished, write down everything you remember, and compare it to your partner's recollection.**

ACTIVITY 3: TELEPHONE TECHNIQUES

INSTRUCTIONS: Unscramble the word, and complete the following statements.

eeiiunbssskl	1.	Use ___________________ phrases instead of slang.
dgewenocakl	2.	Always ___________________ requests.
rieletsn	3.	Be a good ___________________.
zgpeiooal	4.	___________________ for any errors or delays.
smeil	5.	Put a ___________________ in your voice by using polite phrases.
nssrpmieio	6.	Your voice and manner of speaking can make an ___________________ even without seeing the other person.
mena	7.	Show interest by using the caller's ___________________.
wniaitg	8.	Avoid talking to other while a person is ___________________ on a line.
senesisorpx	9.	Avoid using ___________________ which may confuse the caller.
iveercre	10.	Talk directly into the ___________________.
olamrn	11.	Talk at a ___________________ rate.
eotn	12.	The ___________________ of your voice gives meaning to what is said.
llcyaer	13.	Speak ___________________.
pfleluh	14.	Develop a ___________________ telephone voice.

ACTIVITY 4: TELEPHONE PRONUNCIATION AND ARTICULATION TECHNIQUES

Project 1

INSTRUCTIONS: **Using a tape recorder, record this problem on tape. Using the phonetic alphabet handout, spell the list of names provided by your teacher as if you were repeating them over the telephone. Be sure to include your name and this activity number and project number at the beginning of the tape.**

Project 2

INSTRUCTIONS: **Using a tape recorder, record these pronunciation problems on tape. Make sure that you use your lips, teeth, and tongue to help enunciate clearly.**

The first woodsaw I saw saw wood was the woodsaw I saw saw wood in Arkansas. It would out saw any woodsaw I ever saw saw wood. It would saw wood.

ACTIVITY 5: TECHNIQUES OF HANDLING INCOMING AND PLACING OUTGOING TELEPHONE CALLS

Project 1

INSTRUCTIONS: **List and describe five important points in taking messages.**

1.

2.

3.

4.

5.

Project 2

INSTRUCTIONS: **List six items of information that should be included on a properly completed message form.**

1.

2.

3.

4.

5.

6.

ACTIVITY 5 (Continued)

Project 3

INSTRUCTIONS: **Plan your responses to the calls below by writing your responses in the spaces provided.**

SITUATION: **You are employed as a secretary to Ms. Alice Jackson, vice-president for Office Consultants, Inc.**

Ms. Jackson is in charge of an office seminar to be held in Dallas on October 4-6. As her secretary, you have been given the responsibility of handling all reservations for the conference. Deadline for registration is September 6. A registration fee of $100 per person covers all conference materials and a luncheon to be held on October 6. The program hours are from 9 a.m. to 4 p.m. each day. Topics to be addressed are: office stress, sexual harassment, getting along with coworkers, and office safety.

1st Call: **A call comes in from Mr. David Jones requesting information about the registration fee and the deadline for registering.**

1. How would you answer the telephone?

2. What information would you give Mr. Jones?

3. How would you end the call?

ACTIVITY 5 (Continued)

Project 3 (Continued)

2nd Call: **Mrs. Jean Bailey calls wanting to speak to Ms. Jackson about the conference. Ms. Jackson is out of town until noon tomorrow.**

1. How would you answer the telephone?

2. How would you respond after Mrs. Bailey asked to speak to Ms. Jackson?

3. Assume you are unable to answer Mrs. Bailey's question. How would you handle the call?

4. Assume you are able to answer Mrs. Bailey's questions but need to check the files for the information. Describe how you would handle the situation.

5. Assume you have placed Mrs. Bailey on hold. How would you get her attention before giving the information?

6. How would you end the call?

ACTIVITY 5 (Continued)

Project 4

INSTRUCTIONS: **Record the following messages on the message forms provided by your teacher. Use the current date.**

1. Sally Watson received a call from Ted Langley of VIP Videos at 11:15 a.m. regarding the lost shipment. He will call back after lunch.

2. James Carson received a call from John Smith of Ansley, Burton, & Waller at 10:20. Please call back at (214) 720-3457 before 5 p.m. Would not leave a message.

3. Peggy Edwards received a call from Michael Guzman at 1:45 p.m. He will not be able to attend the meeting at 3:30 p.m. and would like to reschedule for 4:30 p.m. Leave a message with his secretary, Ann. (214) 393-1708.

4. Nancy Tillman received a call from John Looper of Tickets, Etc., at 9:05 a.m. regarding the concert tickets. Please call (214) 634-9087 by 4:00 p.m.

Message

For

From

Date Time

Phone No.

Telephoned		Please call	
Called to see you		Will call again	

Message:

Call taken by

Message

For

From

Date Time

Phone No.

Telephoned		Please call	
Called to see you		Will call again	

Message:

Call taken by

Message

For

From

Date Time

Phone No.

Telephoned		Please call	
Called to see you		Will call again	

Message:

Call taken by

Message

For

From

Date Time

Phone No.

Telephoned		Please call	
Called to see you		Will call again	

Message:

Call taken by

ACTIVITY 6: USING THE TELEPHONE DIRECTORY AND DIRECTORY ASSISTANCE

Project 1

INSTRUCTIONS: Using the page on time zones in your local phone directory, answer the question below.

The accounts receivable department of Fenwick Oil Company in Albany, New York, keeps office hours of 8:30 a.m. through 4:45 p.m., with an hour for lunch at 12 Noon. If you are calling for information in that department from a Pacific time zone, what hours (Pacific time) can you place the call?

____

ACTIVITY 6 (Continued)

Project 2

INSTRUCTIONS: **Using the classified page provided by your instructor, select the correct heading that would allow you to find the assistance needed, and write the heading and the appropriate page numbers in the blanks below.**

	Heading	**Page number**
1. Your car will not start in the mall parking lot and needs to be towed to the repair shop.	________	________
2. You are looking for a Mickey Mouse watch for your sister's birthday.	________	________
3. You are trying to find a video rental service near your house that is open all night.	________	________
4. Your mother has told you to pick out new wallpaper for your bedroom.	________	________
5. The front windshield on your car has a crack and needs to be repaired.	________	________

ACTIVITY 6 (Continued)

Project 3

INSTRUCTIONS: **Using the introductory pages of your local telephone directory, locate and answer the following questions.**

__________________ 1. What is the number of the fire department?

__________________ 2. What number should you call for telephone repair?

__________________ 3. What is the number of your local police?

__________________ 4. What number do you call for information about a long-distance number which you do not have?

__________________ 5. What number do you call for information about a local number that is not in the directory?

__________________ 6. What is the area code for San Francisco, California?

__________________ 7. What is the area code for Topeka, Kansas?

__________________ 8. What is the area code for Washington, D.C.?

__________________ 9. What number do you dial to report an error in a telephone bill?

ACTIVITY 6 (Continued)

Project 4

INSTRUCTIONS: **Using the white and yellow pages of your directory, answer the following questions about telephone directory entries.**

_________ 1. What is the phone number of your local post office?

_________ 2. What is the number of your local library?

_________ 3. What is the number of your school?

4. Find three people with the same last name of _________. What are their first names, and what are their addresses?

NAMES	ADDRESSES

5. List the name and number of one business found under each of the subject areas listed:

	NAME	NUMBER
Restaurant		
Physicians		
Banks		
Automobile Parts and Supplies (New)		
Videos		

ACTIVITY 7: LOGGING LONG-DISTANCE TELEPHONE CALLS

INSTRUCTIONS: **Fill in the information for the following long-distance calls on the log form on the bottom of this page. All calls were made on the current date from a Central time zone.**

1. Matt Johnson placed a call to Monroe, Louisiana, at 2:45 p.m. to Dave Burton to confirm a shipment of merchandise. The call ended at 3:00 p.m., (318)742-8729.

2. A call was made to Janice Dumas in New York City, New York, at 11:45 a.m. to verify an order. The call was terminated at 11:46 without getting the information.

   Why wasn't the information obtained?

   What information was omitted from the above record?

DATE	NAME OF PERSON CALLED	PHONE NO.	INITIALS

SECTION IV: COMMUNICATING EFFECTIVELY

UNIT III: WRITTEN COMMUNICATION SKILLS

UNIT OBJECTIVE: Students will be able to prepare effective written communications.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Identify terminology related to written communications.
2. Identify and compose various types of business letters.
3. Use proper formatting techniques in preparation of various types of business documents.

FOCUS: Written communication skills are necessary today's in business offices. The beginning office worker needs to gain experience in the basic written communication areas to be knowledgeable and to contribute to the productivity of the business office.

TERMINOLOGY

Appendix	Additional (but not vital) information located at the end of a report.
Authorization letter	Message that assigns responsibility of writing a report to the author.
Clear	Communication that is intelligible or understandable.
Complete	Supplying all the necessary data in order for the information to be understood.
Concise	Text that consists of the fewest and most straightforward words possible.
Correct	Data is accurate and current.
Courteous	Polite, considerate, and thoughtful; traits expected by businesses when their employees deal with customers.
Formal report	Long reports with several parts; the more parts, the more formal the report.
Goodwill	A favorable impression that businesses seek to create.
Inductive	Begins with the specific objective or purpose and moves toward more general information.
Informal reports	Short reports in various forms.
Letter	A short report written in letter form to someone outside a company.
Memorandum report	Short report in the form of a memo which is used for interoffice communication.
Synopsis	The summary of a report.
Title fly	A listing of the title of the report.
Transmittal letter	Message from the author to the reader.
Visual aids	Illustration, charts, and graphs.
"You" attitude	Keeping in mind the reader's point of view and putting the reader's interests first.

UNIT OVERVIEW

I. Techniques of writing business letters

  A. Steps in composing letters

    1. Organizing

      a. Gather any information needed in order to write the letter (correspondence, notes, etc.).

      b. Read through examples of other letters to help you understand how your employer wants letters to be written.

    2. Planning

      a. Organize your thoughts before you begin to write.

      b. Develop an outline of ideas that should be included in the letter.

      c. Decide on the most logical order in which to express these ideas.

    3. Writing

      a. Develop a rough draft of the letter.

      b. Read through the rough draft to ensure the following:

        (1) Correctness of grammar, punctuation, etc.

        (2) Appropriateness of the information included.

        (3) "Flow" of the message.

  B. Criteria for composing a business letter

    1. Use correct grammar and punctuation.

    2. Apply the five Cs of letter writing.

      a. Complete

        (1) Supply all the necessary data so that the information will be understood.

        (2) Evaluate the information to make sure it answers any questions that might arise.

b. Clear

  (1) Write messages that are simple and easy to understand.

    (a) Must know who audience is.

    (b) Must know what information has to be communicated.

    (c) Must know why there is a desire to communicate.

  (2) Clear messages are arranged logically, in a style that is easy to understand.

c. Correct

  (1) Data in the document is current and correct.

  (2) Validate and update the facts before finalizing the document.

  (3) Make sure information is:

    (a) Grammatically correct.

    (b) Punctuated appropriately.

    (c) Spelled correctly.

    (d) Capitalized appropriately.

    (e) Citing correct names, places, dates, times, and amounts.

d. Concise

  (1) Text should consist of the fewest and most straightforward words possible.

  (2) The message should get right to the point.

  (3) Unnecessary information is omitted since it may distract the reader from your main point.

e. Courteous

  (1) Businesses expect employees to deal with clients through polite, considerate, and thoughtful communication.

    (a) Courtesy encourages good relations.

(b) Courtesy encourages cooperation.

(2) Use courteous business phrases.

(a) Say, "please," "thank you," and "you are welcome."

(b) Include appropriate salutations and complimentary closings in letters.

(c) Use the "you" approach.

(d) Use positive words to avoid planting negative impressions.

3. Outline before writing

C. Ideas to consider when composing letters

1. Purpose of the letter

2. Response wanted from the reader

3. Main topic and supporting ideas

4. Sequence of points

D. Hints for writing business letters

1. Include strong first and last sentences in the letter.

2. Picture the reader; write as if you were speaking directly to the reader; consider the reader's reaction to the information you communicate.

3. Avoid negative words; most people respond favorably to a tactful, positive approach. Stress what can be done rather than what cannot be done.

4. Respond promptly to requests.

5. Plan ahead; outline your ideas, and write the letter from your outline.

6. Be concise; avoid unnecessary words.

7. Use words, phrases, or clauses that enable the message to flow smoothly from one thought to another.

8. The tone of your writing should have the "you" attitude. Use the words *you* and *yours* rather than *I*, *mine*, *we*, and *ours*.

9. Use a variety of sentence structures (simple, complex, etc.) in each message to maintain the reader's interest; keep paragraphs short.

10. Maintain goodwill by suggesting, rather than demanding; by refraining from accusations; and by offering alternatives when appropriate.

11. Proofread the letter to be sure that it is placed attractively on the page, that it has been typed accurately, and that it clearly states the message intended; then make necessary corrections.

E. Types of business letters

1. Goodwill letters

a. Purposes of the goodwill letter are:

(1) To thank someone for favorable action or good service.

(2) To congratulate someone on a promotion or good fortune.

(3) To promote a favorable impression about your company.

b. Content of the goodwill letter:

(1) The introductory paragraph is used to tell why the letter is being written.

(2) The next paragraph is used to expand on the information given in the first paragraph.

(3) The last paragraph is used to draw the entire message to a logical conclusion and to leave the reader with a positive feeling (repeating the thanks or congratulations stated at the beginning of the letter).

2. Request letters

a. Purposes of the request letter are:

(1) To ask someone to act in a specified way.

(2) To ask someone to provide a particular service or specific information.

(3) To ask someone to make a contribution in support of a stated cause.

b. Content of the request letter

(1) The introductory paragraph is used to state the request.

(2) The second paragraph is used to explain why you want the information, product, or service requested.

(3) The third paragraph is used to motivate the reader to grant your request.

(4) The last paragraph is used to close the letter in a courteous, positive tone; it may also include information that will help the reader contact you if any problems or questions arise. Paragraphs three and four may be combined in a short letter.

3. Positive response letters

   a. Purposes of the positive response letter are:

      (1) To fulfill both business and social obligations.

      (2) To grant a request by another person.

      (3) To build goodwill for the company.

   b. Content of the positive response letter

      (1) The introductory paragraph is used to restate the request, and to indicate that the request will be granted.

      (2) The second paragraph is used to support the first paragraph and to give additional, relevant information.

      (3) The last paragraph is used to draw the entire message to a logical conclusion in a courteous, positive tone.

4. Negative response letters

   a. Purposes of the negative response letter are:

      (1) To deny a request by another person.

      (2) To maintain goodwill.

   b. Content of the negative response letter:

      (1) The introductory paragraph is used to establish goodwill. (Begin it by thanking the reader for the request.)

      (2) The second paragraph is used to state and explain the refusal in a polite, positive manner.

(3) The third paragraph is used to offer an alternative and to clarify that alternative by providing specific information.

(4) The last paragraph is used to close the letter in a positive tone by making the reader feel that you are willing to help in any possible way. Paragraphs three and four may be combined in a short letter.

II. Preparing business documents

- A. Interoffice memorandums, or memos
  1. Memos are a type of short report that are distributed within an organization.
  2. Parts of a memorandum:
     - a. **Heading**--name of the company, usually on a printed form which includes TO:, FROM:, DATE:, and SUBJECT: as part of a basic format.
     - b. **Subject**--a statement explaining what the memo is about.
     - c. **Message**--presents the idea and details.
  3. Guidelines for preparing memorandums:
     - a. Space twice after colon in the first line and set the left margin. Right margin is set an equal distance from the right edge.
     - b. Full addresses, salutation, complimentary close, and signature are not included.
     - c. Personal titles (Mr., Mrs., etc.) are omitted from the heading but included on the envelope.
     - d. Triple-space between heading and message; single-space paragraphs; double-space between paragraphs.
     - e. Include reference initials, enclosure notations, and copy notations.
- B. Business forms
  1. These are printed forms with blank spaces in which information is recorded.
  2. Used for short reports submitted at regular intervals (personnel forms, purchasing forms, payroll forms, etc.).

3. Standard forms identify who completed the form, what activity took place, when the activity took place, and why the activity took place.

4. Types of forms available:

    a. **Snap-out form**--a self-contained, preassembled packet with carbon paper.

    b. **Carbonless form**--preassembled packet using carbonless paper, which eliminates the use of carbon paper.

    c. **Continuous forms**--a set of forms joined together with another to create a continuous packet of forms.

    d. **Spot-carbon-coated forms**--no-smudge carbon is applied to certain spots on the back of each form in a pack.

5. General guidelines for preparing forms

    a. Read through the form before typing the information.

    b. Use elite type, if possible, in order to type the information in the spaces provided.

    c. Tabulate and type across the form.

    d. Proofread and make all corrections before removing the form from the typewriter.

C. Business reports

1. Characteristics of a formal business report

    a. Typed single-spaced to save space and paper.

    b. Uses left-bound margins so the report may be placed in a folder or binder, or stapled.

    c. Uses an elite typing element to save space.

    d. Places the summary, conclusion, and recommendation at the beginning of the report.

    e. Uses illustrations, tables, and charts to present information.

    f. Uses the endnote system of footnoting.

2. Basic parts of a business report include:

    a. Title page is the cover sheet for the report and includes:

(1) The title of the report.

(2) Name of person who prepared the report.

(3) Name(s) of person(s) to whom the report is to be distributed.

(4) The date of distribution.

b. Table of contents

(1) Presents an outline of the contents of the report.

(2) Prepared after the body of the report is typed.

c. Body of the report

(1) Includes the facts and information.

(2) Discusses the objective or problem.

d. References

(1) Provides a complete listing of those materials that were used in preparing the body of the report.

(2) A cover page is prepared to separate this section from the other parts of the report.

3. Preparing a formal business report.

a. **Side margins**--use 1 1/2" left margin and a 1" right margin.

b. **Top margins**--center and type the title in all caps on line 13 of the first page. Begin all other pages on line 7.

c. **Bottom margins**--leave at least a 1" bottom margin on all pages.

d. **Center point**--move the center point 1/2" to the right of the original center point to offset the left-bound margin of the report.

e. **Spacing**--single-space the report unless otherwise instructed. Double-space between the paragraphs, and block or indent the paragraphs.

f. **Page numbers**--introductory pages are numbered with small Roman numerals.

(1) All pages within the body of the report are numbered consecutively with Arabic numerals.

(2) Pages may be numbered in one of the following ways:

  (a) Centered in the bottom margin.

  (b) Centered in the top margin.

  (c) Typed at the top right margin on line 4.

g. Headings

(1) **Centered headings**--centered and typed in all caps with a triple space before and a double space after the heading.

(2) **Sideheadings**--typed at the left margin with a triple space before and a double space after the heading. Sideheadings may be typed in all caps or in upper and lower case letters and underlined.

(3) **Paragraph headings**--indent and begin typing the heading. Capitalize only the first word, and underline the entire heading. Type a period at the end of the heading and begin the paragraph. Leave a double space above the heading.

(4) **Top of page headings and column headings**--begin a line seven (7) line spaces from the top of the page, and it should have a triple space after the heading.

NOTE: If a word processor is used, this procedure may vary.

h. **Footnotes**--follow these steps in preparing footnotes using the endnote system:

(1) Type the name of the author and the page number of the quoted material in parentheses after the quote in the body of the report.

Example: ...footnoting reports (Hill: 12).

(2) If two or more publications by the same author are used, place the date of the publication between the author's name and the page number.

Example: ...footnoting reports (Hill: 1975:12).

i. **Title page**--center the information vertically and horizontally on the page.

(1) Type the title of the report in all caps.

(2) Type the remainder of the title page in upper and lower case letters.

j. **Table of contents**--type with the title centered and in all caps on line 13.

(1) Use leaders to connect the listings to the page numbers.

(2) Single-space the listings and, indent any additional lines.

(3) Double-space between each listing.

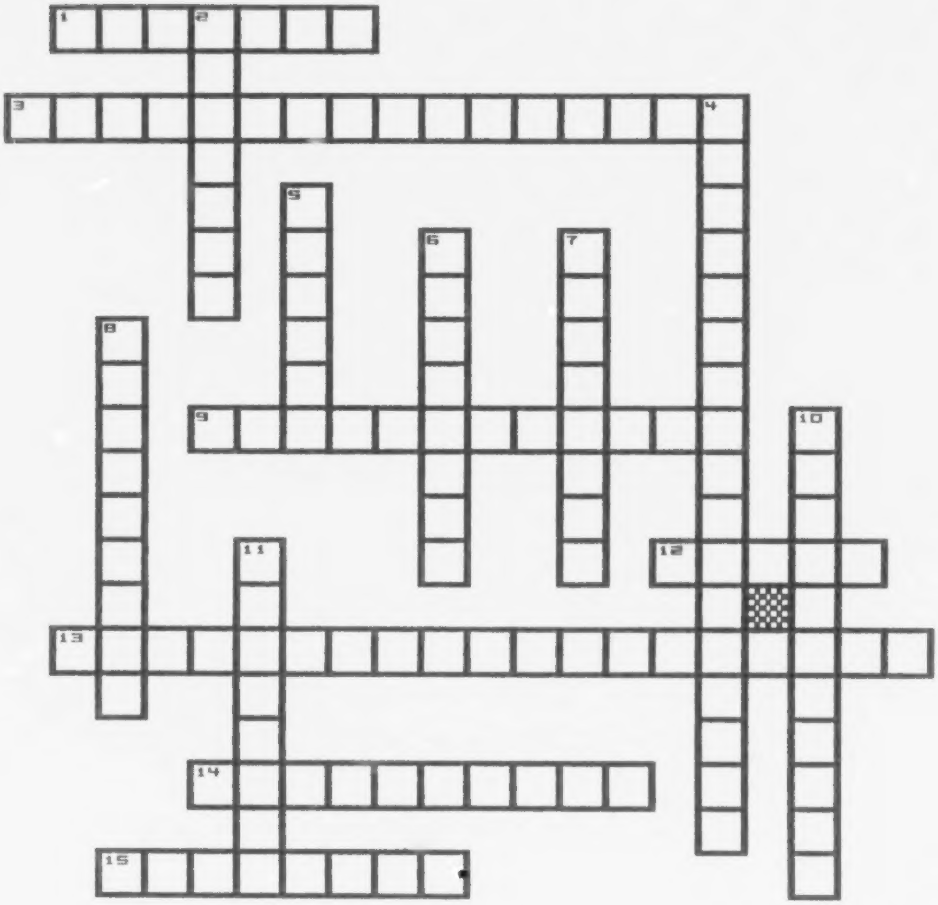
k. **References (Bibliography)**--center and type the title in all caps on line 13.

(1) Triple-space down from the title to begin the listings, which are in alphabetical order by the authors' last names.

(2) The first line of each listing is typed at the left margin, with additional lines indented.

(3) Single-space the listings, and double-space between entries.

ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE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ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE CLUES

ACROSS CLUES

1. Supplying all the necessary data in order for the information to be understood.
3. Short report in the form of a memo, which is used for interoffice communication.
9. Long reports with several parts; the more parts, the more formal the report.
12. Communication that is intelligible or understandable.
13. Message that assigns responsibility of writing a report to the author.
14. Illustration, charts, and graphs.
15. A listing of the title of the report.

DOWN CLUES

2. Data are accurate and current.
4. Message from the author to the reader.
5. A short report written in letter form to someone outside a company.
6. Supplying all the necessary data in order for the information to be understood.
7. The summary of a report.
8. Polite, considerate, and thoughtful; traits expected by businesses when their employees deal with customers.
10. Keeping in mind the reader's point of view, and putting the reader's interests first.
11. A favorable impression that businesses seek to create.

ACTIVITY 2: IDENTIFY AND COMPOSE BUSINESS LETTERS

Project 1

INSTRUCTIONS: **List and describe the steps involved in composing a business letter.**

1.

2.

3.

ACTIVITY 2 (Continued)

Project 2

INSTRUCTIONS: **Match the five Cs of letter writing with their characteristics. Each of the five Cs may be used more than once.**

A. Complete
B. Concise
C. Clear
D. Correct
E. Courteous

CHARACTERISTICS

_______ 1. Message gets right to the point.
_______ 2. How punctuation, grammar, and spelling should be.
_______ 3. Messages are arranged logically, in a style that is easy to understand.
_______ 4. Using "please," "thank you," and "you are welcome."
_______ 5. Supplying all necessary data so that the information will be understood.
_______ 6. Providing current and correct data.
_______ 7. Know what information must be communicated.
_______ 8. Making sure data answer any questions that might arise.
_______ 9. Include complimentary closing.
_______ 10. Unnecessary information is omitted to avoid distracting the reader.
_______ 11. Knowing who audience is.
_______ 12. Using straightforward language.
_______ 13. Being polite, considerate, and thoughtful; traits that businesses require of their employees.
_______ 14. Encourages cooperation.
_______ 15. Using courteous business phrases.
_______ 16. Communicating intelligibly and understandably.
_______ 17. Encourages good relations.
_______ 18. Valid and up-to-date facts.

ACTIVITY 2 (Continued)

Project 3

INSTRUCTIONS: **In your own words, list eight guidelines for composing letters.**

1.

2.

3.

4.

5.

6.

7.

8.

ACTIVITY 3: PREPARING BUSINESS DOCUMENTS

Project 1

INSTRUCTIONS: List and describe the three main parts of a memorandum.

1.

2.

3.

Project 2

INSTRUCTIONS: List and describe the four main parts of a business report.

1.

2.

3.

4.

ACTIVITY 3 (Continued)

Project 3

INSTRUCTIONS: **Compose a memorandum to your principal or counselor, from you, thanking them or making some positive comments about your school and the good job they are doing.**

ACTIVITY 3 (Continued)

Project 4

INSTRUCTIONS: **In your own words, write a one-page, double-spaced report based on the information provided below.**

SEXUAL HARASSMENT POLICY

It is the policy of SERVATRON that sexual harassment, in any form, will not be tolerated in the workplace.

Definition

Sexual harassment includes any action or conduct by a supervisor which threatens or insinuates, either explicitly or implicitly, that an employee's refusal to submit to sexual advances will adversely affect the employee's continued employment, compensation, performance evaluations, advancement, assigned duties, or any other term or condition of employment. Other conduct which demeans the dignity of an employee through insulting or degrading sexual remarks or conduct, or which creates an intimidating, hostile, or offensive work environment, whether committed by supervisor, nonsupervisory personnel or nonemployees such as customers or suppliers, is also prohibited.

Employee Procedures

Any employee who feels that he or she has been a victim of sexual harassment must report the incident immediately to his or her supervisor. If this is not appropriate, the incident must be reported to the next level of management, or, in the alternative, to the region or division's human resources manager.

Supervisor Procedures

Any supervisor or human resources manager receiving a complaint of sexual harassment must immediately contact the division's human resources vice-president, who will promptly direct an investigation of the complaint.

Action Taken

Any supervisor or other employee who is found, after investigation, to have engaged in sexual harassment will be subject to appropriate disciplinary action, up to and including dismissal.

Failure to Comply

Any supervisor or manager who is made aware of sexual harassment and fails to notify the proper parties or take corrective action pursuant to this policy will be subject to disciplinary action, up to and including dismissal.

ACTIVITY 3 (Continued)

Project 5

COMPOSING A GOODWILL LETTER

The goodwill letter is one of the most frequently used business letters, and it usually expresses thanks or offers congratulations. The goodwill letter leaves the reader with a positive feeling. Letters of goodwill usually contain three paragraphs, each containing the following:

Paragraph 1 promotes goodwill.

Paragraph 2 expands and explains.

Paragraph 3 repeats goodwill.

INSTRUCTIONS: Using the information provided below, key in the letter in an appropriate business letter style. Use May 1, 19--, as the date; proofread to ensure accuracy; and make any necessary corrections to produce a mailable document.

Write a letter to John Davis, Personnel Director, City of Dallas, 905 Commerce Street, Dallas, TX 75202, from Mrs. Dora Bennett, Dallas Hotel Association. Thank Mr. Davis for speaking at the monthly luncheon held on February 12. Inform him that the information on the legalities of hiring practices was both beneficial and appropriate to the members present.

ACTIVITY 3 (Continued)

Project 6

COMPOSING A REQUEST LETTER

In a letter of request, the writer usually asks the reader to act in a specific way, provide a service or information, or make a contribution. It is important to state your request in the first paragraph so that the reader will know immediately what the letter is about. A letter of request usually contains the following three or four paragraphs:

Paragraph 1 states the request.

Paragraph 2 explains the request.

Paragraph 2 or 3 motivates the reader to act.

Paragraph 3 or 4 closes the letter courteously.

INSTRUCTIONS: **Using the information below, key in the letter in an appropriate business letter style. Use November 3, 19--, as the date; proofread to ensure accuracy; and make any necessary corrections to produce a mailable document.**

Compose a letter of request to Ms. Elizabeth Madison, Sales Director, Office Express, Inc., 2090 North Pine Street, Houston, TX 77501 from Mr. Jack Washington, Purchasing Director, Davis Plumbing Contractors. Information is needed on computer equipment to establish a word processing department to meet the needs of your growing company now and for the future.

ACTIVITY 3 (Continued)

Project 7

COMPOSING A LETTER OF POSITIVE RESPONSE

The positive response letter can usually be written easily and quickly, because the writer gives an answer that is welcomed by the reader. It also provides an opportunity to build goodwill for your organization. The positive response letter normally contains the following three paragraphs:

Paragraph 1 restates the request and answers "Yes."

Paragraph 2 gives any additional pertinent information.

Paragraph 3 closes with an expression of goodwill.

INSTRUCTIONS: **Using the information below, key in the letter in an appropriate business letter style. Use September 3, 19--, as the date; proofread to ensure accuracy; and make any necessary corrections to produce a mailable document.**

You are employed as a secretary to Mr. William Russell, Sales Director, Midway Office Machines. As one of your jobs, you are expected to respond to any routine inquiries for information on products offered by your company.

You received a letter from Mr. Robert Pledge, Director of Purchasing, Smith and Jones, Inc., 2224 Plaza Parkway, Commerce, TX 75428, requesting information on word processing equipment. Reply to Mr. Pledge's letter, and enclose a copy of your catalog listing the word processing equipment and supplies available. At the same time, inform Mr. Pledge that your company provides consulting service for evaluating and determining the word processing needs of a business and to contact you at (817)356-0098 for further information.

ACTIVITY 3 (Continued)

Project 8

COMPOSING A LETTER OF NEGATIVE RESPONSE

Negative response letters are the most difficult to write, because the writer must refuse to grant the request but still maintain the goodwill of the reader. It is usually better to explain the refusal before actually saying "No." If possible, a letter of negative response should offer an alternate solution to the request. A skilled writer can give a negative response and still leave the reader with a favorable impression. The negative response letter usually contains the following paragraphs:

Paragraph 1 expresses goodwill.

Paragraph 2 explains the refusal and says "No."

Paragraph 3 offers an alternative.

Paragraph 4 closes with goodwill.

INSTRUCTIONS: **Using the information below, key in the letter in an appropriate business letter style. Use October 15, 19--, as the date; proofread to ensure accuracy; and make any necessary corrections to produce a mailable document.**

You are employed as a secretary to David Patton, Personnel Director, Maynard and Phillips. As one of your job duties, you are expected to respond to any routine correspondence for Mr. Patton.

Ms. Betty Sinclair, 216 North Franklin Street, Hillsboro, TX 76645 has applied for an administrative secretarial position with your company. Currently, there are no positions available. Write a letter telling Ms. Sinclair there are presently no openings in the job category for which she has applied, but you are going to keep her file active in case a vacancy should occur.

SECTION IV: COMMUNICATING EFFECTIVELY

UNIT IV: LANGUAGE USAGE SKILLS

UNIT OBJECTIVE: Students will be able to demonstrate proper language usage skills in business.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Apply spelling rules.
2. Identify and correctly use various punctuation marks.
3. Identify and apply rules for capitalization.
4. Identify and apply rules for writing sentences.

FOCUS: Proper language skills play an important role in our daily lives. These skills are mirrors of our character and personality. As they reflect our personal lives, they also present an image in the business world. Meeting the demands of the modern business world requires proper speaking and writing skills.

TERMINOLOGY

Active voice	Action expressed by the verb in the sentence is performed by the subject.
Adjective	Modifies nouns and pronouns.
Adverb	Modifies verbs, adjectives, and other adverbs.
Articulation	Clear, distinct formation of words when speaking.
Clause	A group of related words containing a subject and a predicate.
Collective noun	A singular noun referring to a group such as "committee" or "choir."
Conjunction	Joins words, phrases, clauses, and sentences.
Consonant	A speech sound of any letter in the alphabet except *a*, *e*, *i*, *o*, *u*, and sometimes *y*.
Dash	A line made up of two hyphens used to emphasize a break in a sentence.
Direct approach	Inductive approach; writing from specific to general information.
Hyphen	A short line used to join some compound words or to show word division at the end of a line.
Indirect approach	Deductive approach; writing from general to specific information.
Interjection	A word or words used to show a sudden burst of emotion; an exclamation.
Limitation	Any aspect restricting what is being included in a report.
Noun	Name of person, place, thing, or idea.
Phrase	A group of related words that does not contain both a subject and a predicate.
Possessive	A word showing ownership, origin, or possession.
Predicate	The word or words that say something about the subject of a sentence or clause.

Prefix	Something placed at the beginning of a word to change its meaning; for example, *anti* + social = *anti*social.
Preposition	Shows the relation between its object (noun or pronoun) and another word in the sentence.
Projection	Speaking loudly enough for audience to hear.
Pronoun	Takes the place of a noun.
Scope	In a written report, the breadth or range of the topic.
Sentence	A group of words which has a subject and a predicate and is used to tell, ask, command, or exclaim something.
Subject	The word or group of words in a sentence about which something is said.
Suffix	Syllable(s) added to the end of a word to change its meaning; e.g., remark + *able* = remark*able*).
Tone	Quality or pitch of one's voice.
Verb	Shows action or state of being.
Vowel	Any of these letters: *a*, *e*, *i*, *o*, *u*, and sometimes *y*.

UNIT OVERVIEW

I. Applying spelling rules

   A. Spelling tips

      1. Learn to pronounce words correctly.

      2. Learn to see when a word does not "look right."

      3. Use the dictionary to find words you cannot spell.

      4. Use some sort of memory device to help you remember how a word is spelled.

      5. Learn some simple rules for spelling.

      6. Be careful about your spelling.

      7. Make a list of commonly misspelled words to refer to when necessary.

      8. Recognize the prefix and the root of a word; e.g., *mis* + spell = *mis*spell).

   B. Simple spelling rules

      1. Words containing ***ie*** or ***ei***

         a. Remember this verse: "***i*** before ***e*** except after ***c*** or when sounded like ***a*** as in neighbor or weigh."

            (1) ***i*** before ***e***: achieve, view, niece

            (2) except after ***c***: receive, conceit, ceiling

         b. The usual spelling is ***ie*** when this vowell combination is followed by an ***r***: frontier, pier

      2. Final ***y***

         a. Words ending in ***y*** with a consonant before the ***y*** usually change the ***y*** to ***i*** before any suffix except one beginning with an ***i*** (***ing***, ***ish***, ***ist***).

            Example: copy, cop*ies*, copy*ing*

         b. Words ending in ***y*** with a vowel before the ***y*** do not change the ***y*** to ***i***.

            Example: convey, convey*ing*

3. Doubling the final consonant

   a. Double the consonant in a one-syllable word if a vowel is before the consonant and if the suffix begins with a vowel.

      Example: swim + ***er*** = swim*mer* and swim + ***ing*** = swim*ming*

      Exceptions: do not double the final consonant if the word ends in ***w***, ***x***, or ***y***: fix + ***ed*** = fix*ed*.

   b. Double the consonant in a two-syllable word when the accent is placed on the last syllable and if it is preceded by a vowel and the suffix begins with a vowel.

      Example: occur + ***ed*** = occur*red*

4. Final ***e***

   a. Usually, words ending in a "silent" ***e*** drop the ***e*** before a suffix beginning with a vowel.

      Example: deprive + ***ing*** = depriv*ing*

   b. Keep the ***e*** when adding a suffix beginning with a consonant.

      Example: achieve + ***ment*** = achieve*ment*

   c. Keep the silent ***e*** when the suffixes ***able*** or ***ous*** are added to words ending with the soft sound of ***ce*** or ***ge***.

      Example: manage + ***able*** = manage*able* and outrage + ***ous*** = outrage*ous*

5. Noun plurals

   a. Add ***s*** to a singular noun.

      Example: committee + ***s*** = committee*s*

   b. Add ***es*** to nouns ending in ***s***, ***z***, ***ch***, ***sh***, or ***x***.

      Example: business + ***es*** = business*es* and brush + ***es*** = brush*es*

   c. When a noun ends in ***o*** with a consonant before the ***o***, add ***es***.

      Example: hero + ***es*** = hero*es*

d. When a noun ends in *o* with a vowel before the *o*, add *s*.

Example: stereo + *s* = stereos

e. Drop the *y* and add *ies* when nouns end in a consonant plus *y*.

Example: hobby + *es* = hobbies and family + *es* = families

f. Add an *s* when nouns end in a vowel plus *y*.

Example: monkey + *s* = monkeys and attorney + *s* = attorneys

6. Noun possessives are used to show ownership, possession, or relationship.

a. Add apostrophe and *s* (*'s*) to a singular noun.

Example: Jane's car

b. If a singular, one-syllable noun ends in an *s* or a *z* sound, add apostrophe and *s*.

Example: boss's report

c. If a singular noun made up of two or more syllables ends in an *s* or a *z* sound, add only the apostrophe.

Example: Mr. Connors' vacation

d. When forming the plural possessive of a noun, use two steps: (1) make the noun plural, and (2) make the noun possessive.

(1) If a plural noun ends in *s*, add an apostrophe.

Example: churches' property

(2) If a plural noun does not end in *s*, add an apostrophe and an *s*.

Example: women's forum

II. Punctuation marks

A. Period

1. Use to show the end of a sentence.

Example: It was a beautiful day.

2. Use after letters or numbers that list items.

   Example: 1. period

   2. comma

3. Use at the end of a letter or word that is an abbreviation.

   Example: Dr. and Mrs. and Jr.

4. Use as a decimal point.

   Example: .025 and $7.50

B. Comma

1. Use to separate independent clauses joined by a coordinating conjunction (*and*, *but*, *or*, *nor*).

   Example: We are going to the movies, and Susan is staying at home.

2. Use to separate words, phrases, and clauses in a series.

   Example: Denise, Julie, and Melissa are going to the mall.

3. Put after introductory words and phrases.

   Example: Before mailing, proofread the letter completely.

4. Use to set off parenthetical expressions in sentences.

   Example: I am convinced, however, that we should continue the meeting.

5. Use to set off an appositive.

   Example: The club president, Mike Harris, called the meeting to order.

6. Place between coordinating adjectives.

   Example: She was a capable, competent secretary.

7. Use to set off a direct address.

   Example: Turn off the stereo, Billy.

8. Use to show that words are omitted but easily understood from the context of the sentence.

   Example: We use Word Star for word processing; the second year students, Word Perfect.

9. Use to set off a direct quotation from the rest of the sentence.

   Example: Jerry said, "Will you please type this letter?"

10. Use to separate words that are repeated for emphasis.

    Example: Joe was very, very impressed with Julie's car.

11. Use to set off titles, degrees, and seniority designations with a person's name.

    Example: John H. Rose, Jr., was a good friend of mine.

12. Use to separate the day of the week from the month and the month from the year.

    Example: Monday, December 25, 1989

13. Use to separate thousands, hundred thousands, millions, etc., in numbers consisting of four or more digits.

    Example: $5,623,912

C. Semicolon

1. Place between clauses in a compound sentence when the two clauses are not joined by a conjunction (*and*, *or*, *nor*, *but*).

   Example: The paper costs $5.05 a ream; the pens are $3.25 a dozen.

2. Put before a conjunctive adverb (*however*, *therefore*, *otherwise*) when the adverb joins two independent clauses.

   Example: The suit is beautiful; however, it is too small.

3. Place between independent clauses joined by a conjunction if either or both of the clauses contain internal commas.

   Example: Chris, Mark, and Dave will go to the movie; and John will stay at home.

4. Place between members of a series when one or more of the members contains a comma.

   Example: The club officers are Billy Morgan, president; Jill Lee, vice president; Shannon Moore, secretary; and Don Barnes, treasurer.

D. Colon

1. Use after an expression such as *these* or *the following* when that expression is used to introduce a series of items.

   Example: We use the following programming languages: BASIC, PASCAL, and FORTRAN.

2. Use to separate an introduction from a long quotation.

   Example: President Kennedy used this quotation in his inaugural address: "Ask not what your country can do for you; ask what you can do for your country."

3. Use to introduce lists, tabulations, enumerations, words, or phrases.

   Example: Buy these items at the grocery store: bread, milk, butter, and cheese.

4. Put in place of the words *that is* or *for example* after a statement that introduces an example or an explanation that makes clear the beginning of the sentence.

   Example: We have to make a decision: to leave this work unfinished or to stay late at the office.

5. Put after the salutation of a business letter if a comma is used after the complimentary close.

   Example: Dear Mr. Wilson:

6. Place between the hours and minutes in clock times that are expressed in figures.

   Example: 10:15 a.m.

E. Hyphens

1. Use in compound numbers from twenty-one to ninety-nine.

2. Use with the prefixes *self*, *ex*, and *great*.

   Example: Your goal is to become self-supporting.

3. Use with a prefix and a root word that begins with a capital letter.

   Example: The countries formed a pro-American alliance.

4. Use when compound adjectives come before a noun.

   Example: My ten-speed bike is blue.

F. Dashes

1. Use to emphasize a word or group of words.

   Example: The car was flashy, sporty, powerful--and expensive.

2. Use to indicate a break or shift in thought.

   Example: That car--the one with the personalized license plate--belongs to a senior.

3. Use to indicate an omission of letters and words and to connect combinations of letters and figures.

   Example: from 1980--1990 and l--r

III. Capitalization

A. The first word of every sentence

B. Proper nouns

1. Names of people and titles used for specific persons

   Example: President Bush, Mayor Tom Price, Mary Jones

2. Names of countries, states, regions, localities, geographic areas, etc.

   Example: Germany, England, Texas, the East, the Panhandle

3. Names of the months and days of the week, but not seasons

   Example: January, Saturday, fall, summer

4. Trade names, but not generic names

   Example: Xerox, Frigidaire, copier, refrigerator

5. Names of historic events, eras, and holidays

   Example: American Revolution, Labor Day, the Great Depression

6. Titles of high government officials

   Example: President George Bush, or George Bush, President of the United States.

7. Titles that are before the name of the person, but not titles that follow the name

   Example: President Bob Brown   Bob Brown, president of State University

8. Names of academic degrees following a person's name

   Example: Glen Waylon, M.D. and Thomas Freeman, Doctor of Law

9. Every important word in the title of a book, play, magazine, musical composition

   Example: *Gone with the Wind*, *The Red Badge of Courage*, and *America the Beautiful*

10. In an outline, the first word at the beginning of each item beside a letter or number

IV. Writing sentences

A. Parts of speech

1. **Noun**--the name of a person, place, thing, or idea.

   Example: secretary, town, table, freedom

2. **Pronoun**--takes the place of a noun.

   Example: he, them, it, that

3. **Verb**--shows action or state of being.

   Example: run, understand

4. **Adjective**--modifies nouns and pronouns.

   Example: the **blue** car

5. **Adverb**--modifies verbs, adjectives, and other adverbs.

   Example: He walked **slowly**.

6. **Conjunction**--joins words, phrases, clauses, or sentences.

   Example: Sue **and** Bill went to eat.

7. **Preposition**--shows the relation between its object and word in the sentence.

   Example: Joan went **to** the movies.

8. **Interjection**--used to show a sudden burst of emotion; an exclamation.

   Example: **Oh**! You scared me.

B. Types of clauses

1. Independent clause
   - a. Contains a subject and a predicate.
   - b. Expresses a complete thought.
   - c. May stand alone as a complete sentence.

   Example: The technician repaired the terminal.
   S P

2. Dependent clause
   - a. Contains a subject and a predicate.
   - b. Does not express a complete thought.
   - c. Cannot stand alone as a complete sentence.

   Example: As soon as the terminal is delivered.
   S P

C. Types of sentences

1. Simple sentence
   - a. Uses one subject and one predicate to tell a message.
   - b. Makes straightforward statements of fact.

   Example: We returned home.
   S P

2. Compound sentence
   - a. Contrasts or compares two closely related ideas or thoughts.

b. Demonstrates how two ideas fit together.

c. Uses two independent clauses joined by a coordinating conjunction that makes the relationship of the clauses clear.

Example: The board members will meet after dinner, and they will elect a new chairperson.

3. Complex sentence

a. Contains one independent clause and one or more dependent clauses.

b. Shows how one thing influences another.

c. The dependent clause relies on the independent clause to give it meaning.

Example: $\underset{\textbf{dependent}}{\underline{\text{Since the board members will meet in a closed session}}}$, $\underset{\textbf{independent}}{\underline{\text{we cannot attend}}}$.

D. Subject and verb agreement

1. Simple sentence

a. Uses a singular verb with a singular subject.

Example: $\underset{\textbf{ss}}{\underline{\text{He}}}$ $\underset{\textbf{sv}}{\underline{\text{is}}}$ going to town.

b. Uses a plural verb with a plural subject.

Example: $\underset{\textbf{ps}}{\underline{\text{We}}}$ $\underset{\textbf{pv}}{\underline{\text{are}}}$ going to town.

2. Compound subject

a. A compound subject joined by ***and*** requires a plural verb.

Example: John and Mary $\underset{\textbf{pv}}{\underline{\text{are}}}$ going to town.

b. A compound subject joined by ***or*** or ***nor*** requires a singular verb.

Example: Neither John nor Mary $\underset{\textbf{sv}}{\underline{\text{is}}}$ going to town.

3. Plural nouns with singular verbs

a. Plural nouns with a singular meaning require singular verbs.

Example: News travels quickly.
sv

b. Sums of money, a quantity, or a number agree with a singular verb.

Example: The $100 is being used for supplies.
sv

4. Collective nouns

a. Use a singular verb if the collective noun is considered as a unit.

Example: The class is on a field trip.
sv

b. Use a plural verb if the collective noun is being considered as separate individuals, objects, or units.

Example: The faculty are working on their lesson plans.
pv

E. Sentence construction

1. Avoid "run-on" sentences.

Run-on sentence: Will and Dawn went to see a movie last night, they said it was the worst movie they had ever seen.

Correct: Will and Dawn went to see a movie last night. They said it was the worst movie they had ever seen.

2. Avoid short, "choppy" sentences.

Choppy: We completed our work. We went home.

Correct: When we completed our work, we went home.

3. Be concise; avoid unnecessary words.

Wordy: The undoubtedly highest and widest circus tent in the world was erected this bright and beautiful morning in a field which was once a meadow just outside of town.

Correct: The world's largest circus tent was erected this morning just outside of town.

4. Use active voice (the subject of the sentence is doing something) rather than passive voice.

   Passive: The present was wrapped by me.

   Active: I wrapped the present.

5. Use picture words (words that cause the reader to see exactly what the writer is writing about), and use a variety of words to express an idea.

   Poor: The squirrel ran across the lawn and up a tree.

   Good: The furry, gray squirrel raced across the snow-covered lawn and up the thick trunk of a leafless tree.

ACTIVITY 1: SPELLING

Project 1

INSTRUCTIONS: **Fill in the missing letters in the following words, using either *ie* or *ei*. Check your work, using a dictionary.**

1. v_l
2. sh_ld
3. perc_ve
4. conven_nce
5. l_sure
6. coll_
7. n_ce
8. bel_ve
9. sl_gh
10. p_rce
11. ch_f
12. conc_t
13. ach_ve
14. y_ld
15. s_ge
16. v_n
17. th_ves
18. pr_st
19. h_ght
20. gr_f

ACTIVITY 1 (Continued)

Project 2

INSTRUCTIONS: **Correctly spell each word below as it would appear after adding the endings shown.**

1.	Lobby	ing	____________________
2.	Buy	ing	____________________
3.	Envy	ed	____________________
4.	Satisfy	ed	____________________
5.	Cry	ing	____________________
6.	Accompany	ing	____________________
7.	Fish	er	____________________
8.	Scurry	ed	____________________
9.	Mercy	less	____________________
10.	Busy	ly	____________________
11.	Coy	ness	____________________
12.	Deny	ing	____________________
13.	Easy	est	____________________
14.	Delay	s	____________________
15.	Biography	cal	____________________

ACTIVITY 1 (Continued)

Project 3

INSTRUCTIONS: Determine whether or not the final consonant of each word below should be doubled before adding the ending shown. Correctly spell the word on the line provided.

1.	Happen	ing	______________
2.	Control	ed	______________
3.	Differ	ent	______________
4.	Occur	ed	______________
5.	Seem	ly	______________
6.	Big	er	______________
7.	Deliver	ed	______________
8.	Pop	ed	______________
9.	Lag	ed	______________
10.	Can	ed	______________
11.	Regret	able	______________
12.	Prefer	ing	______________
13.	Allot	ment	______________
14.	Prefer	ence	______________
15.	Faith	ful	______________
16.	Fit	er	______________
17.	Catch	ing	______________
18.	Account	ing	______________
19.	Effort	less	______________
20.	Control	ed	______________

ACTIVITY 1 (Continued)

Project 4

INSTRUCTIONS: Determine whether or not the "silent" *e* at the end of the words below would remain when adding the endings shown. Spell each word correctly on the line provided.

1. Excite ment ____________________
2. Outrage ous ____________________
3. Force ible ____________________
4. Assure ance ____________________
5. Live ly ____________________
6. Refuse al ____________________
7. Devote ed ____________________
8. Agree able ____________________
9. Imagine ary ____________________
10. Engage ing ____________________

ACTIVITY 1 (Continued)

Project 5

INSTRUCTIONS: Decide whether to add *s*, *es*, or *ies* to the end of the words below. Spell each word correctly on the lines provided.

1. Capacity ____________
2. Alley ____________
3. Piece ____________
4. Bus ____________
5. Hero ____________
6. Safe ____________
7. Activity ____________
8. Shovel ____________
9. Wheel ____________
10. Fly ____________
11. Monkey ____________
12. Echo ____________
13. Fox ____________
14. Ratio ____________
15. March ____________
16. Studio ____________
17. Dish ____________
18. Tomato ____________
19. Mess ____________
20. Rodeo ____________

ACTIVITY 2: PUNCTUATION

Project 1

INSTRUCTIONS: **In the following sentences, insert commas and periods where they are needed.**

1. The car is out of gas and I can't find a gas station
2. He bought a tent sleeping bag and flashlight for the camping trip
3. In the beginning Melissa typed slowly
4. The mailman's name is Mr Juan Gonzalez
5. Paul is going to town but Chris is staying home
6. Mrs Smith is responsible for answering the phone
7. The waitress served coffee donuts and toast to Ms Adams
8. The total amount of the check was $90435.00
9. The president of State University Calvin Black is addressing the club today
10. My promotion was a long long time ago
11. Mr Roberts has a beautiful black dog
12. On Monday January 21 1990 Miss Joan H Reed will begin her new job
13. Steve Boat Jr works for his father Mr Boat
14. Jennifer said "When are you leaving"
15. John is four years old and Billy two

ACTIVITY 2 (Continued)

Project 2

INSTRUCTIONS: **In the following sentences, insert semicolons or colons where they are needed.**

1. He is expecting you at 930 a.m.
2. The instructions should have been made perfectly clear this was not done the first time.
3. President Lincoln began the Gettysburg address "Four score and seven years ago...."
4. Sandra is married however, Anne is single.
5. Buy these items at the store batteries, tissue, and soda.
6. Now only one decision remains which supplies to buy.
7. It was not an easy assignment actually, it was almost impossible.
8. The office was just what he wanted it was big enough, and the rent was reasonable.
9. The 1000 a.m. meeting has been canceled.
10. We knew you would be late therefore, we started the meeting without you.

Project 3

INSTRUCTIONS: **In the following sentences, insert hyphens and dashes where they are needed.**

1. There are twenty five students in this class.
2. That girl the one with red hair is very attractive.
3. The book covered the period from 1974 1984.
4. Susan wanted an up to date dress for the dance.
5. The dog was small, cute, black and mean.

ACTIVITY 3: CAPITALIZATION

INSTRUCTIONS: **Draw three lines under each letter that should be capitalized in the following sentences.**

1. the red river separates texas from oklahoma.
2. my favorite holiday is christmas.
3. george bush, president of the united states, will be in texas next week.
4. *sports illustrated* is my favorite magazine.
5. tim's birthday is on tuesday, january 25.
6. the south is a very romantic place to read about.
7. i would like to visit england, also known as great britain, someday.
8. my new refrigerator is a frigidaire.
9. i have an appointment with dr. reed on monday.
10. *the red badge of courage* is one of the books i will read this summer.

ACTIVITY 4: WRITING SENTENCES

Project 1

INSTRUCTIONS: **Identify the complete sentences by placing a C in the correct space.**

_____ 1. Jerry who lives next door.
_____ 2. While Sue is on the phone, I will answer the door.
_____ 3. If I were you.
_____ 4. Because of our experience, we will do a good job.
_____ 5. When you came to the door.
_____ 6. Winston barked at the stranger.
_____ 7. Because of the delay.
_____ 8. Because we worked hard, we finished first.
_____ 9. If we can go to the movies.
_____ 10. We will pick you up at 7:00 p.m. if we can go.

Project 2

INSTRUCTIONS: **In the following sentences, circle the words that make the sentence correct. In the blank, identify each word selected as S for singular or P for plural.**

_____ 1. The class (is, are) reading a book together.
_____ 2. The news (is, are) great.
_____ 3. Scott and Barry (is, are) going to the mall.
_____ 4. Neither Hank nor Bob (is, are) speaking at the luncheon.
_____ 5. The owner and manager (is, are) Mr. Kelly.
_____ 6. Bread and butter (is, are) served with the meal.
_____ 7. Each of the children (is, are) to receive a free pass.
_____ 8. Liz or Cindy (is, are) going to babysit.
_____ 9. The notepad and pen (is, are) in the desk drawer.
_____ 10. Steak or pizza (is, are) my favorite meal.

ACTIVITY 4 (Continued)

Project 3

INSTRUCTIONS: Write three simple, compound, and complex sentences.

Simple Sentences:

1.

2.

3.

Compound Sentences:

1.

2.

3.

Complex Sentences:

1.

2.

3.

SECTION V

SOCIAL IMPLICATIONS OF COMPUTER USAGE

ESSENTIAL ELEMENT

75.87(d)/(m)(7)(A)(B)

7. **Concepts and skills associated with the social implications of computers. The student shall be provided opportunities to:**

   (A) **Examine issues concerning responsible use of computer systems; and**

   (B) **Understand the social ramifications of computer applications related to privacy, values, and reliability of systems.**

SUGGESTED UNIT LESSON PLAN

SECTION V: SOCIAL IMPLICATIONS OF COMPUTER USAGE

UNIT I: SOCIAL IMPLICATIONS

ESSENTIAL ELEMENT: 75.87 (d)/(m)(7)(A)(B) **ALLOCATED TIME:** 5 Hours

UNIT OBJECTIVE: Students will describe the issues related to the responsible use of computer systems, appraise the social ramifications of computer usage by society, and identify responsible practices in the use of computers.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Identify terminology related to computer crime, computer users, and new computer devices and techniques.
2. Identify the major issues and technological developments related to computers and society.
3. Describe the ethical and legal issues that have arisen as a result of the computer revolution.
4. Identify privacy issues involved with electronic data storage.
5. Explain the reasons for concern about the reliability of computer systems.

FOCUS: Using a computer is like using a piece of powerful machinery such as an automobile. Most people use computers harmlessly and responsibly, but if the user is irresponsible, careless, or malicious, the effects of decisions and actions can be far-reaching and damaging. Computers have caused so many changes in the way we live and work that society is totally dependent upon them (as it is on the automobile). The first step toward responsible use of computers is understanding the scope and implications of the relationship between society and technology.

DOMAINS:	Activities and competency tests have been designed to provide learning experiences utilizing the affective, cognitive, and/or psychomotor domains. Activities and competency tests are coded on the Activity and Competency Test Matrices.
BASIC SKILLS:	Activities and competency tests have been designed to reinforce the basic skills of reading, writing, and/or mathematics. Activities and competency tests are coded on the Activity and Competency Test Matrices.

CONTENT OUTLINE

I. General issues
  A. Dependency
  B. Nameless society
  C. Technological developments
  D. Viral epidemic
II. Legal and ethical issues
  A. Computer crime
  B. Data spying
  C. Hackers
  D. Employees or former employees
  E. Piracy
  F. Laws involving computer and software usage
III. Privacy issues
  A. Destination of copies
  B. Originator of data
  C. Credit bureaus
  D. Data banks
  E. Paperless offices
IV. Reliability of systems
  A. Hardware
  B. Software
  C. Storage media
  D. People
  E. Confidentiality
  F. Accuracy

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SUGGESTED TEACHER ACTIVITIES

General Teacher Preparation

1. Preview the unit.
2. Review unit objectives.
3. Make instructional analysis.
4. Assess student learning needs.
5. Decide on lesson domain: Cognitive, psychomotor, or affective domain.
6. Select instructional materials based on instructional analysis and student learning needs.
7. Select instructional strategies based on lesson content and student learning needs.
8. Prepare lesson plans from the unit lesson.
9. Prepare additional instructional material.
10. Reserve necessary media and equipment.

Teacher Presentation

1. Present student objectives.
2. Establish rapport with students.
3. Review lesson objectives with students.
4. Relate lesson to prior or future learning.
5. When appropriate, encourage student interaction through questioning, discussions, or some other strategy.
6. Emphasize the value/importance of the unit or activity.
7. Allow time for closure of a lesson.

Reteach Activities

1. Identify area(s) of weakness from results of evaluation.
2. Select unit activities not previously used.
3. Use additional resources and/or create materials based on student learning needs.
4. Use a different teaching strategy in reteaching.
5. Retest.

Specific Teaching Activities

NOTE: You may wish to modify this unit to meet your students needs and their abilities.

1. Obtain a copy of the movie *War Games* or another computer-related movie to show in your classroom. The movie *War Games* shows how dangerous "hacking" can be. Discuss with the students the ramifications of computer hacking.

2. Since computer crime and computer ethics have become very important lately, you may wish to have an open discussion before presenting the unit. Using this method, you can decide how much the students already know about the material.

3. The laws that are used in Activity 3, Project 2, were difficult to locate. You may wish to have a guest speaker come to class and give the students an overview of the different laws concerning computer crime and related topics. If you are unable to do this, you can obtain a photocopy or a copy of the *Texas Penal Code* from your local police department. Other laws may be found in history books, publications from the U.S. Government, and periodicals.

4. Prepare a bulletin board that relates to this unit. Ask the students to bring in articles they find in newspapers or periodicals about responsible use of computers and the ramifications that are related to the topic. You may wish to award extra points to the students who participate in this activity.

5. Plan a visit to the school library to search for information about computers and privacy, or legal issues.

ACTIVITY MATRIX

Activities	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
1	X			X		
2 Project 1	X				X	
Project 2	X				X	
Project 3	X				X	
3 Project 1	X			X	X	
Project 2	X	X		X	X	
Project 3	X				X	
4	X	X		X	X	
5	X			X	X	

COMPETENCY TEST MATRIX

Parts	Domains			Basic Skills		
	Cognitive	Psycho-motor	Affective	Reading	Writing	Math
I	X			X	X	
II Project 1	X				X	
Project 2	X			X	X	
III Project 1	X				X	
Project 2	X				X	
IV	X				X	
V	X				X	

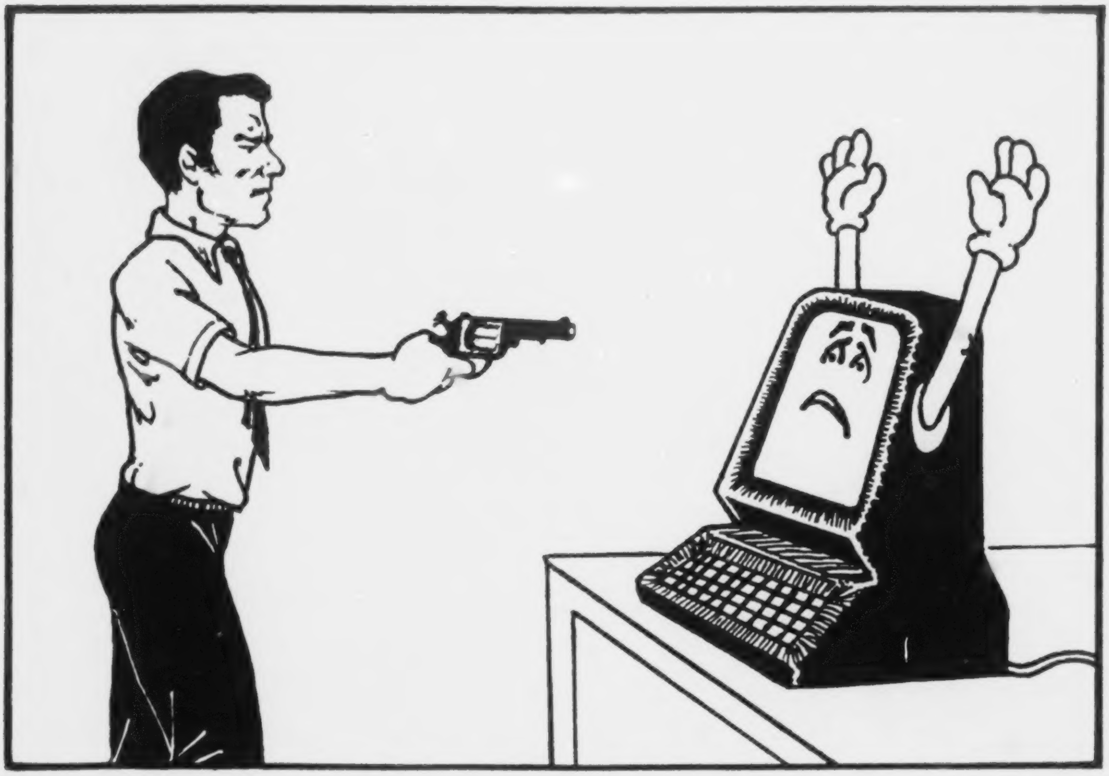
PROVISIONS OF THE PRIVACY ACT
(1974)

Requires justification for creation of or access to data banks

Requires that government agencies and private industry allow individuals access to information about themselves

COMPUTER CRIME

- White-collar crime
- Large amounts of money
- Theft of technology
- Few criminals caught; fewer prosecuted



COMPETENCY TEST

PART I: TERMINOLOGY

INSTRUCTIONS: Fill in the blank with the correct term.

____________________ 1. A program that mimics the decision-making logic of human experts.

____________________ 2. A field of study involving techniques under which computers can formulate responses on the basis of content of accumulated and experience-related information.

____________________ 3. Any illegal act for which knowledge of computer technology is used to commit the offense.

____________________ 4. The unauthorized copying of a computer program written by someone else.

____________________ 5. The science that deals with robots, their construction, capabilities, and applications.

____________________ 6. A term describing data that has been translated into a secret code for security reasons.

____________________ 7. The final phase of the virus life cycle.

____________________ 8. A form of illegal access to data.

____________________ 9. An information-producing system aimed at a particular decision a manager must make.

____________________ 10. The current compact disks for computers, similar to read-only memory.

____________________ 11. The time delay between initial system infection and virus activation.

____________________ 12. A way in which the "spirit" of some laws are applied to computer-related activities.

____________________ 13. The process of self-isolation within the current host program and attachment of the isolated segment to a new host.

____________________ 14. Program that watches for typical things viruses do.

____________________ 15. A virus that leaves no external signs of its presence after infection.

____________________ 16. The process a virus uses to identify and distinguish itself from its host system.

____________________ 17. A term that implies that all paper documents have been replaced by electronic media and devices.

____________________ 18. The invasion of a virus into a host system.

____________________ 19. A computer enthusiast who is challenged by the practice of breaking computer security measures.

____________________ 20. A training method that uses a response pad and an interconnection box.

____________________ 21. An original virus design.

____________________ 22 The remains of a virus after activation.

____________________ 23. The program to which the virus attaches itself.

____________________ 24. A modification of a viral strain that results in a slightly different functionality.

PART II: GENERAL ISSUES

Project 1

INSTRUCTIONS: Answer the following questions.

1. How do computer dependency and the nameless society affect you?

2. How are each of the following used?
    1) Artificial intelligence:
    2) Robotics:
    3) CD-ROM:
    4) Hypergraphics:

PART II (Continued)

Project 2

INSTRUCTIONS: Fill in the blank with the correct term.

__________ 1. A segment of machine-language code that replaces software or data with a copy of itself without authorization.

__________ 2. A virus that checks for a certain action.

__________ 3. A type of virus that was created to spread a greeting of world peace.

__________ 4. A programmer's placement of unauthorized instructions in a computer operating system for future use in gaining access to restricted information.

__________ 5. Replaces the original boot sector with itself; causes loss of data.

__________ 6. A virus that breaks down the directory section, making it impossible for a disk's contents to be read.

__________ 7. Infects any application; loss of data due to system crashes.

__________ 8. A segment of code that allows data to be transmitted to the legitimate operator while other data are transferred to an illegal operator.

__________ 9. Programs that use network connections to spread from system to system.

__________ 10. Replaces original boot sector with itself; spreads quickly to all bootable disks.

__________ 11. A virus that checks for a specific date or time.

__________ 12. Infects any .COM or .EXE program.

__________ 13. Appears in many different varieties.

__________ 14. Infects COMMAND.COM file.

PART III: LEGAL AND ETHICAL ISSUES

Project 1

INSTRUCTIONS: Answer each of the following questions.

1. In your own words, define computer crime and explain why this type of crime is difficult to prosecute.

2. Name three types of computer crime and discuss what you think should be done to stop the crimes.

    1)

    2)

    3)

PART III (Continued)

Project 2

INSTRUCTIONS: **Explain in a short paragraph one of the laws that you researched concerning computers.**

1081

PART IV: PRIVACY ISSUES

INSTRUCTIONS: List in order of importance those items which you feel could improve privacy for credit bureaus, data banks, and paperless offices.

PART V: RELIABILITY OF SYSTEMS

INSTRUCTIONS: Answer the following questions.

1. List three (3) types of computer hardware.

    1)

    2)

    3)

2. What is the best protection to use against software failure?

3. Name four (4) types of storage media.

    1)

    2)

    3)

    4)

4. How can accuracy of data be improved?

ANSWERS TO ACTIVITIES

Activity 1

```
COMPUTERETHICS     P
      X       H    A
 ENCRYPTION H A    P
      E     O C    E
HYPERGRAPHICS K NVIR
    E T     T E    L
    P S     ?IRACY E
    L Y     R      S
  T I S NETWORKWORMS
  I C T     G      O
  M A E   CDROM    F
  E T M     A      F
  B I       M      I
 ROBOTICS    V     C
  M N    TROJANHORSE
  B          C
             C
      SCORESVIRUS
             N
       VIRUSREMNANT
```

Activity 2

Project 1-2 Evaluated to the satisfaction of the instructor.

Project 3 Answers may vary.

Robotics:	The science that deals with robots, their construction, capabilities, and applications. This technology can be used as: mail carriers or aides for the handicapped.
Artificial Intelligence:	A field of study involving techniques under which computers can formulate responses on the basis of content of accumulated and experience-related information. This technology can be used in: decision support systems and expert systems.
CD-ROM:	The current compact disks for computers, similar to read-only memory; they cannot be erased or recorded on. This technology can be used for archival storage.
Hyper-graphics:	A method used in classrooms or in-service training that involves the participants, the teacher, and the computer through the use of a response pad and an interconnection box. This technology can be used as a training device.

Activity 3

Projects 1-3 Evaluated to the satisfaction of the instructor.

Activity 4 Evaluated to the satisfaction of the instructor.

Activity 5 Answers may vary.

1.
    1) Microcomputers
    2) Minicomputers
    3) Mainframes
    4) Keyboards
    5) Monitors
    6) Printers
2. Back up copies and taking care of the disks.
3.
    1) Magnetic tape
    2) Diskettes
    3) Hard disks
4. Evaluated to the satisfaction of the instructor.

COMPETENCY TEST ANSWERS

Part I

1. Expert systems
2. Artificial intelligence (AI)
3. Computer crime
4. Piracy
5. Robotics
6. Encryption
7. Activation
8. Data spying
9. Decision support system
10. CD-ROM
11. Activation period
12. Computer ethics
13. Replication
14. Vaccine
15. Hidden virus
16. Isolation
17. Paperless office
18. Infection
19. Hacker
20. Hypergraphics
21. Viral strain
22. Virus remnant
23. Host program
24. Viral variety

Part II

Project 1 Evaluated to the satisfaction of the instructor.

Project 2

1. Computer virus
2. Logic Bomb
3. Peace virus
4. Trojan Horse
5. Alameda virus
6. Datacrime
7. Scores virus
8. Trap Door
9. Network worms
10. Pakistani Brain virus
11. Time Bomb
12. Israeli virus
13. nVIR
14. Lehigh virus

Part III

Project 1-2 Evaluated to the satisfaction of the instructor.

Part IV Evaluated to the satisfaction of the instructor.

Part V Answers may vary.

1.
   1) Monitors
   2) Keyboards
   3) Printers

2. Make backup copies and protect the disks.

3.
   1) Magnetic tape
   2) Diskettes
   3) Hard disks
   4) Disk packs

4. Evaluated to the satisfaction of the instructor.

COMPETENCY CHECKLIST

ESSENTIAL ELEMENT: 75.87(d)/(m)(7)(A)(B)

The student shall be provided opportunities to: examine issues concerning responsible use of computer systems and understand the social ramifications of computer applications related to privacy, values, and reliability of systems.

OBJECTIVE:	Students will describe the issues related to the responsible use of computer systems, appraise the social ramifications of computer usage by society, and identify responsible practices in the use of computers.	MASTERY	NON-MASTERY
1.	Identify terminology related to computer crime, computer users, and new computer devices and techniques.	______	______
2.	Identify the major issues and technological developments related to computers and society.	______	______
3.	Describe the ethical and legal issues that have arisen as a result of the computer revolution.	______	______
4.	Identify privacy issues involved with electronic data storage.	______	______
5.	Explain the reasons for concern about the reliability of computer systems.	______	______
		______	______

STUDENT NAME 1087

SECTION V: SOCIAL IMPLICATIONS OF COMPUTER USAGE

UNIT I: SOCIAL IMPLICATIONS

UNIT OBJECTIVE: Students will describe the issues related to the responsible use of computer systems, appraise the social ramifications of computer usage by society, and identify responsible practices in the use of computers.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Identify terminology related to computer crime, computer users, and new computer devices and techniques.
2. Identify the major issues and technological developments related to computers and society.
3. Describe the ethical and legal issues that have arisen as a result of the computer revolution.
4. Identify privacy issues involved with electronic data storage.
5. Explain the reasons for concern about the reliability of computer systems.

FOCUS: Using a computer is like using a piece of powerful machinery such as an automobile. Most people use computers harmlessly and responsibly, but if the user is irresponsible, careless, or malicious, the effects of decisions and actions can be far-reaching and damaging. Computers have caused so many changes in the way we live and work that society is totally dependent upon them (as it is on the automobile). The first step toward responsible use of computers is understanding the scope and implications of the relationship between society and technology.

TERMINOLOGY

Activation	The final phase of the virus life cycle.
Activation period	The time delay between initial system infection and virus activation.
Alameda virus	Replaces the original boot sector with itself; causes loss of data.
Artificial Intelligence (AI)	A field of study involving techniques under which computers can formulate responses on the basis of content of accumulated and experience-related information.
CD-ROM	The current compact disks for computers, similar to read-only memory; they cannot be erased or recorded on.
Computer crime	Any illegal act for which knowledge of computer technology is used to commit the offense.
Computer ethics	A term used to refer to the standard of moral conduct in computer use; a way in which the "spirit" of some laws are applied to computer-related activities.
Computer virus	A segment of machine-language code that replaces software or data with a copy of itself without authorization.
Datacrime	A virus that breaks down the directory section, making it impossible for a disk's contents to be read.
Data spying	A form of illegal access to data.
Decision support system	An information-producing system aimed at a particular decision a manager must make.
Encryption	A term describing data that has been translated into a secret code for security reasons.
Expert system	A program that mimics the decision-making logic of human experts.
Hacker	A term used to describe computer enthusiasts who are challenged by the practice of breaking computer security measures designed to prevent unauthorized access to a particular computer system.

Hidden virus	A virus that leaves no external signs of its presence after infection.
Host program	The program to which the virus attaches itself.
Hypergraphics	A method used in classrooms or in-service training that involves the participants, the teacher, and the computer through the use of a response pad and an interconnection box.
Infection	The invasion of a virus into a host system.
Isolation	The process a virus uses to identify and distinguish itself from its host program.
Israeli virus	Infects any .COM or .EXE program; some versions destroy all data on the hard disk; stored programs will disappear.
Lehigh virus	Infects COMMAND.COM file; causes loss of all data on hard disk.
Logic Bomb	A virus that checks for a certain action, such as if an infected program has been executed a preset number of times.
Network worms	Programs that use network connections to spread from system to system; thus network worms attack systems that are linked via communication lines. It can behave like a virus, or it can plant a virus.
nVIR	Appears in many different varieties, each with its own individual activation characteristics. Causes loss of data and programs; causes frequent system crashes.
Pakistani Brain virus	Replaces original boot sector with itself; system crash can cause loss of data; spreads quickly to all bootable disks.
Paperless office	A term that implies that all paper documents have been replaced by electronic media and devices.
Peace virus	A type of virus that was created to spread a greeting of world peace and then erases its own instructions, disappearing without a trace.
Piracy	The unauthorized copying of a computer program written by someone else.

Replication	The process of self-isolation within the current host program and attachment of the isolated segment to a new host.
Robotics	The science that deals with robots, their construction, capabilities, and applications.
Scores virus	Infects any application; loss of data due to system crashes.
Time Bomb	A virus that checks for a specific date or time (such as Friday the 13th) before executing its objective.
Trap Door	A segment of code that allows data to be transmitted to the legitimate operator while other data are transferred to an illegal operator.
Trojan Horse	A programmer's placement of unauthorized instructions in a computer operating system for future use in gaining access to restricted information.
Vaccine	Program that watches for typical things viruses do, halts them, and then warns the computer operator.
Viral strain	An original virus design; distinct from other viruses by its internal structure.
Viral variety	A modification of a viral strain that results in a slightly different functionality.
Virus remnant	The remains of a virus (if any) after activation.

UNIT OVERVIEW

I. **General issues**--As computers do more and more work in society, new social issues and questions continue to emerge. Many questions arose during the period when large mainframes took over data management in banks, insurance companies, financial institutions, and other large corporations; others appeared with the proliferation of microcomputers. Some of the effects of computers are felt by all of us.

A. Dependency

1. Anyone who has had to wait for several minutes because "the computer is down" while trying to make a credit card purchase at a retail store knows what it means to be dependent on computers.

2. Not learning the status of a credit ca.rd account is minor compared to the failure of the police or fire department emergency computer system or an airline reservation system.

3. In the situations above, the manual substitute, or backup, is totally unsatisfactory, and these functions can be said to be "computer dependent."

4. There are dozens of ways in which our daily activities could be crippled by computer failure.

B. Nameless society

1. Can we accept being identified by a number instead of a name?

a. We are known to some organizations by our social security number, to others by our drivers license number, and to others by an account number.

b. If we respond to a computerized billing error, we have no assurance that a human will ever see the response.

2. It is unclear what effects this namelessness will have on the quality of our lives or where these effects will lead.

C. Technological developments

1. **Artificial Intelligence**--a field of study involving techniques under which computers can formulate responses on the basis of content of accumulated and experience-related information.

a. Used in expert systems.

b. Used in decision support systems.

c. Used in robotics.

2. **Robotics**--the science that deals with robots, their construction, capabilities, and applications.

    a. Useful for repetitive work on an assembly line.

    b. Used as mail carriers in large firms.

    c. Used in warehousing.

    d. Used by the handicapped.

    e. Used by those working with radioactive materials.

3. **CD-ROM**--the current compact disks for computers, similar to read-only memory; they cannot be erased or recorded on.

    a. About the same size as a floppy disk.

    b. Store and retrieve faster than floppy disks.

    c. Can hold a gigabyte (a million megabytes) or more.

    d. Used in libraries.

    e. Used for storing archival materials.

4. **Hypergraphics**--a method of instruction that involves the participants, the teacher, and the computer through the use of a response pad and an interconnection box.

    a. Used in classrooms.

    b. Used as a training device.

D. Viral epidemic

1. **Computer virus**--a segment of machine-language code that replaces software or data with a copy of itself without authorization.

2. **Pakistani Brain virus** (IBM and compatibles)

    a. Replaces original boot sector with itself.

    b. Moves original boot sector to another location.

    c. Adds seven sectors which contain the remainder of the virus.

    d. Flags all modified sectors as unusable to protect itself.
    e. Replicates onto all inserted bootable floppies.

3. **Scores virus** (Macintosh)
    a. Infects any application.
    b. Increases application size by 7000 bytes.
    c. Seeks out new hosts at 3 1/2-minute intervals.
    d. Creates notepad and scrapbook files in system folder.
    e. Creates invisible Scores and Desktop files.
    f. Looks for existence of specific file names for destruction.

4. **Israeli virus** (IBM and compatibles)
    a. Infects any .COM or .EXE program.
    b. Increases program's size by approximately 1800 bytes.
    c. Infected programs are modified to become memory resident (TSRs).
    d. Programs are infected when they are executed in the infected system.
    e. Floppy or hard disks can become infected.

5. **nVIR virus** (Macintosh)
    a. This virus appears in may different varieties.
    b. Each variety has its own individual activation characteristics.
    c. The publication of the source code for this virus is primarily responsible for the wide variations.
    d. The similar infection techniques are:
        (1) Places nVIR resource in system file; code resource in application.
        (2) Once system is infected, every application executed is infected.

6. **Alameda virus** (IBM and compatibles)
   a. Replaces original boot sector with itself.
   b. Stores original boot sector on first free sector.
   c. Infects through software re-boot sequence.
   d. Does not flag original boot sector as unusable.
7. **Lehigh virus** (IBM and compatibles)
   a. Infects COMMAND.COM file.
   b. Changes size by approximately 20 bytes.
   c. Changes creation date and time.
   d. Activates after four infections.
   e. Destroys all system data.
8. **Datacrime virus**
   a. Breaks down the directory section.
   b. Makes it impossible for a disk's contents to be read.
9. **Logic Bomb virus**--checks for a certain action; for example, to see if an infected program has been executed a preset number of times.
10. **Network worms**
    a. Attacks systems that are linked via communication lines.
    b. May be found in programs that use network connections to spread from system to system.
    c. Behaves like a virus, or it can plant a virus.
11. **Time Bomb virus**--checks for a specific date or time (such as Friday the 13th) before executing its objective.
12. **Trojan Horse**--a programmer's placement of unauthorized instructions in a computer operating system for future use in gaining access to restricted information.

13. **Trap Door**--a segment of code that allows data to be transmitted to the legitimate operator while other data are transferred to an illegal operator.

14. **Peace virus**--a type of virus that was created to spread a greeting of world peace and then erased its own instructions, disappearing without a trace.

II. Legal and ethical issues

A. Computer crime

1. Any illegal act for which knowledge of computer technology is used to commit the offense.

2. A computer crime does not mean just breaking a written law; it also means breaking ethical codes.

3. Breaking ethical codes is a crime that is very hard to prosecute because of the way the laws are written.

    a. Big corporations do not always prosecute because they want the crime "hushed up" so it will not hurt their business.

    b. Corporations do not want to risk losing their stockholders; therefore, most computer crimes are settled out of court.

4. More computer crime exists today because the criminals are being hired as computer consultants and specialists; no precedent has been set to use as an example to deter other potential criminals.

B. Data spying

1. A form of illegal access to data.

2. Most notable are the cases where unauthorized persons learn passwords or otherwise bypass security procedures in order to gain information from a competitor or for personal gain.

3. Theses people normally "look" at the data; they do not alter or delete data.

4. Data spying is most easily done when systems have teleprocessing capabilities to acquire or change information.

5. A personal computer or terminal can be used to dial up a computer. Industry must go to great lengths to improve password and log-on procedures in order to prevent this kind of activity.

C. Hackers

1. Computer enthusiasts who are challenged by the practice of breaking computer security measures designed to prevent unauthorized access to a particular computer system.

2. While only a few of these individuals actually engage in unauthorized or illegal activities, these few give a bad name to the whole class of gifted experimenters.

3. Rather than steal data, a hacker is more inclined to destroy or alter it.

D. Employees or former employees

1. Personnel who have access to confidential data are subject to temptations to reveal or sell information.

2. Disgruntled or fired employees have been known to sell or give away data for revenge or, when in a position to do so, remove or alter important records from the files.

3. Sometimes when an employee changes jobs, the knowledge about confidential information acquired in his/her former job may put him/her in a possibly awkward position.

E. Piracy

1. The unauthorized copying of a computer program written by someone else.

2. This crime has become "big business" in both the U.S. and Europe.

3. Software programmers are not putting the copy protection on their programs, which makes pirating easy.

F. Laws involving computer and software usage

1. The courts have ruled that computer programs are protected under the copyright laws.

2. The problem is that programs like audio and videotapes are easy to copy, making the law difficult to enforce.

3. Some publishers have gone to great lengths to insert special routines or sometimes viruses into their software to prevent illegal copying. NO method has been foolproof, and programs to break the copy protection routines are as common as the protection routines themselves.

4. Other publishers rely on the honor system, hoping that legitimate users will appreciate the trust which permits them to protect their own interests by making archival backups.

5. Currently the trend among major software companies is to offer unprotected versions of their copyrighted software programs.

    a. Many companies sell site licensing contracts to businesses and schools.

    b. Other companies just enclose a copyright page inside the software package container.

III. Privacy issues

A. When business was transacted using handwritten or typed documents, there was a high degree of control over the destination of copies of the information. Now, since computers process the data once it is entered, the control is less certain.

B. The originator of the data, a person who filled out an employment application, for example, has little idea where the information will end up. Confidential data are processed by many organizations.

C. Credit bureaus

1. The sole purpose of these organizations is to keep up-to-date records on the financial activities of individuals and businesses.

2. Data are compiled from member or affiliate businesses who subscribe to their services.

3. A problem for the person holding the account is that inaccurate information can be difficult to remove from these credit bureau records.

4. Sometimes it is easier for creditors to get information than it is for the individual concerned.

D. Data banks

1. There was once a proposal for a huge national data bank in which all the information about every citizen, gathered by all state and local agencies, would be stored.

2. Using a social security number, any agency could have access to everything known about the owner of the number.

3. The idea would save huge amounts of money because it would prevent much duplication of effort and would make information so much more accessible.

4. Fortunately, several members of Congress foresaw the plan as the serious threat to privacy that it was, and the data bank was never created. There are, however, many data bases within businesses and state and local governments that have a great deal of confidential data about persons. Improper access to these databases could be damaging.

E. Paperless offices

1. This term implies that all paper documents have been replaced by electronic media.

2. Office personnel may object to a "paperless office" because memos, reports, etc., would no longer be personal and confidential.

3. Security and passwords would have to be controlled so that sensitive information could be sent on the system.

4. Encryption

    a. A term describing data that has been translated into a secret code for security reasons.

    b. People who send E-mail messages to a specific person may use encryption.

    c. Encryption could be used to keep computer crime to a minimum.

5. Some companies are using passwords to enter the computer systems.

IV. **Reliability of systems**--when speaking of computer reliability, most people think only of the hardware. Systems, however, are made up of hardware, software, and people. Reliability, or lack thereof, can be a factor of any of these elements.

A. Hardware

1. Although computer breakdowns are not as frequent as the public perceives them to be, hardware breakdowns do occur.

2. With mainframes, most organizations have a plan for backup operation of critical systems. The expense for the backup is usually justified by the importance and timeliness of the data.

3. Minicomputers are smaller than mainframes; however, the minis may have the same capabilities as a mainframe. Most companies will have some form of backup in case of failure.

4. When failures occur with microcomputers, the work can usually be transferred to another computer.

5. No matter what kind of a computer is used, there should always be a backup plan so that a hardware problem does not cripple the business operation.

B. Software

1. There is a saying that states, "There is no such thing as a program without bugs, only programs for which all the bugs have not yet been discovered."

2. Reputable software companies are responsive to users who have problems, and they often provide subscription support services to users.

3. As with storage, frequent backup copying is the best defense against software failure.

C. Storage media

1. Magnetic tape and disk packs are still being used on mainframes and minicomputers.

2. Diskettes, or fixed disks, are used for microcomputer storage.

3. Making backup copies of important data should be a regular activity, with the frequency of copying depending on the difficulty of recovering lost data.

    a. When using magnetic tape or disk packs, they should be checked at regular intervals for wear and flaws.

    b. When fixed (hard) disks are used, the copies should not be on the same disk.

    c. Floppy disks should be inspected regularly for wear or flaws.

D. People

1. In large computer shops, several people are trained to do each job, and substitutes can step in when needed.

2. In an office using microcomputers, often only one person is assigned to a job, and if that person is ill or leaves, there is chaos while someone else learns the system.

3. Having formally written, precise, and detailed procedures for all jobs is the solution to this problem, but too often these procedures are not put in writing.

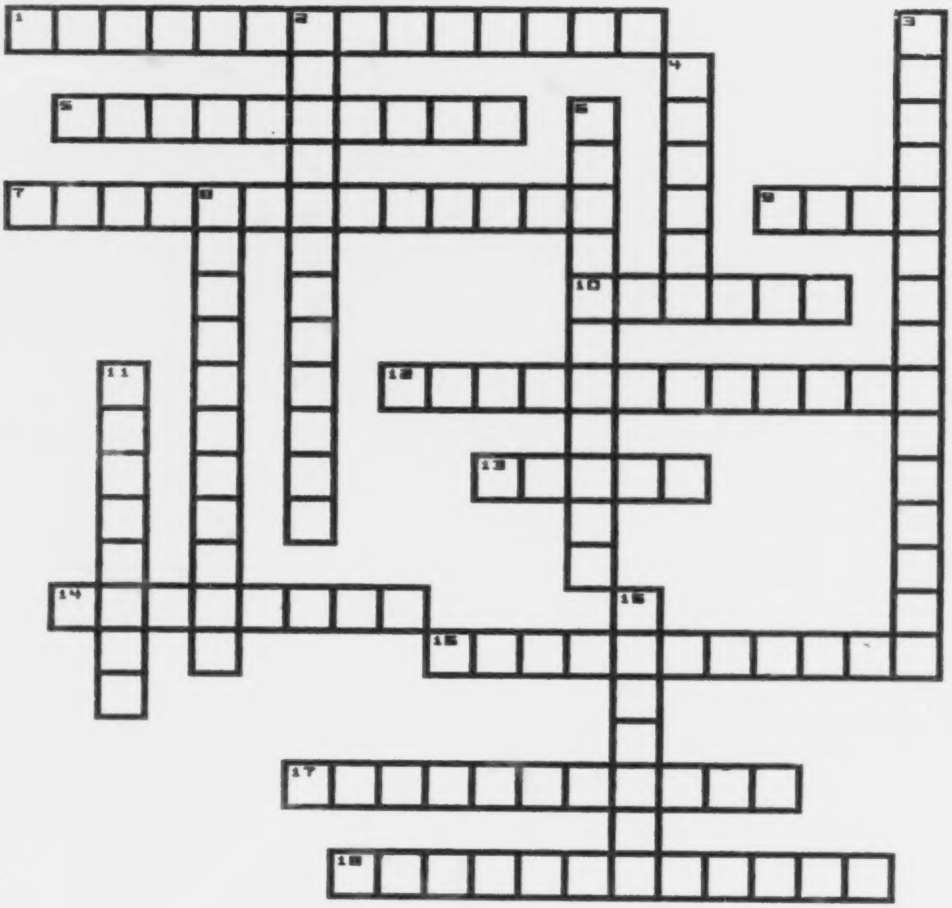
E. Confidentiality

1. Computer professionals at all levels come in contact with private or even secret data.
2. Just as medical personnel and lawyers must preserve the confidentiality of their patients' or clients' records, a data entry operator must not divulge data that passes across his/her desk or terminal.
3. After leaving one job for another, or even when fired, former employees should not divulge knowledge about computer information.
4. Computer information must remain the property of the employer.

F. Accuracy

1. Loss of data can occur due to many causes--anything from industrial sabotage to hardware failure.
2. The most frequent cause of erroneous data is careless behavior by employees. Inaccurate key entry, failure to follow procedures for verification, leaving a workstation unattended, and overlooking an item of data are all ways in which an employee can be responsible for errors.
3. Improper care of equipment and disks can cause serious problems, including loss of data.
4. Not following specified exiting procedures may cause files to be inaccessible.

ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE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ACTIVITY 1: TERMINOLOGY CROSSWORD PUZZLE CLUES

ACROSS CLUES

1. A term used to refer to the standard of moral conduct in computer use; a way in which the "spirit" of some laws are applied to computer-related activities.

5. A term describing data that has been translated into a secret code for security reasons.

7. A method used in classrooms or in-service training that involves the participants, the teacher, and the computer through the use of a response pad and an interconnection box.

9. Appears in many different varieties, each with its own individual activation characteristics. Causes loss of data and programs; causes frequent system crashes.

10. The unauthorized copying of a computer program written by someone else.

12. Programs that use network connections to spread from system to system; can behave like a virus, or it can plant a virus.

13. The current compact disks for computers, similar to read-only memory; they cannot be erased or recorded on.

14. The science that deals with robots, their construction, capabilities, and applications.

16. A programmer's placement of unauthorized instructions in a computer operating system for future use in gaining access to restricted information.

17. Infects any application; loss of data due to system crashes.

18. The remains of a virus (if any) after activation.

DOWN CLUES

2. A program that mimics the decision-making logic of human experts.

3. A term that implies that all paper documents have been replaced by electronic media and devices.

4. A term used to describe computer enthusiasts who are challenged by the practice of breaking computer security measures designed to prevent unauthorized access to a particular computer system.

6. The program to which the virus attaches itself.

8. The process of self-isolation within the current host program and attachment of the isolated segment to a new host.

11. A virus that checks for a specific date or time (such as Friday the 13th) before executing its objective.

15. Program that watches for typical things viruses do, halts them, and then warns the computer operator.

ACTIVITY 2: ISSUES

Project 1

INSTRUCTIONS: **As our society becomes more dependent on computers and we become a "nameless society," many problems arise. Using the knowledge you have about this unit, write a one-page essay about how computer dependency and the nameless society affect you.**

ACTIVITY 2 (Continued)

Project 2

INSTRUCTIONS: **Computer crime is a growing concern within our society. Write a short paragraph explaining the issue and then your reaction concerning each of the following:**

1. Computer crime

2. Piracy

3. Prosecuting the crime

ACTIVITY 2 (Continued)

Project 3

INSTRUCTIONS: **Define and give an example of how each of the following could be used in an office setting.**

1. Robotics

2. Artificial Intelligence

3. CD-ROM

4. Hypergraphics

ACTIVITY 3: LEGAL AND ETHICAL ISSUES

Project 1

INSTRUCTIONS: **Write a short paragraph concerning the action you would take if you were in the following situations.**

Situation 1

A friend just bought the last copy of a computer game that you have wanted for a long time. You have not been able to afford the game. Your friend tells you that since there is no copy protection on the diskette, he/she will make a copy and give it to you. What would you do?

Situation 2

Your school has just purchased a spreadsheet package for the computer lab. You have a home computer and one of your classes requires a lot of work done with a spreadsheet. The copy in the lab is not copy protected. Your best friend is the lab assistant and he/she tells you that if you want a copy of the spreadsheet package, you can copy it from one of the terminals. What would you do?

ACTIVITY 3 (Continued)

Situation 3

You have a home computer and your brother/sister likes to "play" with the computer. One Saturday afternoon, he/she tells you that he/she has broken into someone's computer bank. What would you do?

Project 2

INSTRUCTIONS: **Even though both federal and state laws are enacted toward stopping computer crime, many of the laws are not enforced. Of the following research two (2) and explain what the laws are, what the laws cover, and what your opinion would be to improve the laws.**

1. *Fair Credit Reporting Act of 1970*
2. *Freedom of Information Act of 1970*
3. *Federal Privacy Act of 1974*
4. *Counterfeit Access Device and Computer Fraud and Abuse Act of 1984*
5. *Small Business Computer and Security Education Act of 1984*
6. *Title 18 U.S. Code,* Section 1029
7. *Foreign Corrupt Practices Act of 1977*
8. *Texas Penal Code,* Section 33.01-33.05
9. Other laws suggested by the instructor

ACTIVITY 3 (Continued)

Project 3

INSTRUCTIONS: **Using the different types of viruses described in this unit, choose three (3) and explain what each one does to a computer system.**

1)

2)

3)

ACTIVITY 4: PRIVACY ISSUES

INSTRUCTIONS: **Research the following areas and then write a report about what could be done to improve security (use terms discussed in the unit such as E-mail, etc.).**

1. Credit bureaus
2. Data banks
3. Paperless offices

ACTIVITY 5: RELIABILITY OF SYSTEMS

INSTRUCTIONS: Complete the following questions.

1. Name at least five (5) different types of hardware.

   1)

   2)

   3)

   4)

   5)

2. What can be do to protect software from failure?

3. Name three (3) types of data storage.

   1)

   2)

   3)

4. Write a short paragraph about the relationship involving people, confidentiality, and accuracy.

CLOSURE OF BUSINESS OFFICE CLERICAL/SERVICES

This section provides a closure to the course Business Office Clerical/Services. The section includes review of course objectives, sections, units, and student competencies. Suggestions for course and student evaluations are also included.

SUGGESTED UNIT LESSON PLAN

CLOSURE FOR BUSINESS OFFICE CLERICAL/SERVICES

ALLOCATED TIME: 3 Hours

UNIT OBJECTIVE: Students will be able to analyze, evaluate, and demonstrate proficiency in course content.

STUDENT COMPETENCIES: After completing this unit, the students will be able to:

1. Relate the objectives of the course Business Office Clerical/ Services to personal success in the business environment.
2. Analyze section and unit contents in relation to the course objectives.
3. Recognize levels of competency performance.
4. Assess the course in terms of objectives and content.
5. Complete a course examination with a score of 70 percent or better accuracy.

FOCUS: An important component of the learning process is closure. Closure may be considered a review, a summation, or a conclusion. The student is led to see how the parts make up or contribute to the whole. A final question needs to be answered: "Has the course accomplished its primary objective?"

DOMAINS: Activities and competency tests have been designed to provide learning experiences utilizing the cognitive, psychomotor, or affective domains. Activities and competency tests are coded on the Activity and Competency Test Matrices.

BASIC SKILLS: Activities and competency tests have been designed to reinforce the basic skills of reading, writing, and/or mathematics. Activities and competency tests have been coded on the Activity and Competency Test Matrices.

CONTENT OUTLINE

I. Review of course objectives

II. Review of sections and units

  A. Keyboarding

  B. Filing

  C. Operating office machines

  D. Communicating effectively

  E. Social implications of computer usage

III. Analysis of student competencies

IV. Course evaluation

V. Examination

SUGGESTED TEACHER ACTIVITIES

General Teacher Preparation

1. Preview unit.
2. Review unit objectives.
3. Make instructional analysis.
4. Assess student learning needs.
5. Decide on lesson domain: cognitive, psychomotor, or affective domain.
6. Select instructional materials based on instructional analysis and student learning needs.
7. Select instructional strategies based on lesson content and student learning needs.
8. Prepare lesson plans from the unit lesson.
9. Prepare additional instructional material.
10. Reserve necessary media and equipment.

Teacher Presentation

1. Present student objectives.
2. Establish rapport with students.
3. Review lesson objectives with students.
4. Relate lesson to prior or future learning.
5. When appropriate, encourage student interaction through questioning, discussions, or some other strategy.
6. Emphasize the value/importance of the unit or activity.
7. Allow time for closure of a lesson.

Reteach Activities

1. Identify area(s) of weakness from results of evaluation.
2. Select unit activities not previously used.
3. Use additional resources and/or create materials based on student learning needs.
4. Use a different teaching strategy in reteaching.
5. Retest.

Specific Teaching Activities

1. Design a bulletin board for Business Office Clerical/Services. Suggestions are: WHAT I HAVE LEARNED FROM BOC/BOS; MY BEST FROM BOC/BOS; AFTER BOC/BOS, WHAT?

2. Review overhead transparencies included with Section I on course objectives.

3. Discuss with students the objectives of the course.

4. Divide students into groups. Assign to each group a section to be reviewed and presented to the class. The review might include: competencies, synopsis of units, importance of units. Have the other students take notes.

5. Hand out the listing of competencies to the class. Have each student rate what he/she considers to be his/her level of performance for each competency.

   Suggested levels of performance might include: MIN (minimum), 1; F (fair), 2; A (average), 3; or M (mastery), 4. The instructor will need to determine what criteria constitute the levels. Collect these sheets and tally the information for each of the competencies. Use this information when planning for the next year. Make revisions in your teaching style, presentation, etc., for competencies that a majority of the students feel they have achieved only a minimal mastery.

6. Assign students to develop review questions for the examination. Provide the students with the procedures for keying in the questions. Make copies for each group of questions and answers for the remaining class members. Review these with the students. Inform the students that you will be adding some questions of your own. Provide the students with examples. Give the examination from these questions.

7. Give examples for the type of psychomotor skills you will be testing.

8. Assign time for students to review for their examination. Be sure they know the correct answers to the questions and/or activities.

CLOSURE FOR BUSINESS OFFICE CLERICAL/SERVICES

UNIT OBJECTIVE: Students will be able to analyze, evaluate, and demonstrate proficiency in course content.

STUDENT COMPETENCIES: After completing this unit, the student will be able to:

1. Relate the objectives of the course Business Office Clerical/-Services to personal success in the business environment.
2. Analyze section and unit contents in relation to the course objectives.
3. Recognize levels of competency performance.
4. Assess the course in terms of objectives and content.
5. Complete a course examination with a score of 70% or better accuracy.

FOCUS: An important component of the learning process is closure. Closure may be considered as a review, a summation, or a conclusion. The student is led to see how the parts make up or contribute to the whole. A final question needs to be answered: "Has the course accomplished its primary objective?"

UNIT OVERVIEW

I. Review of course objectives

II. Review of sections and units

  A. Keyboarding

    1. Keyboarding skills

      a. Identify terminology related to basic keyboarding.

      b. Recognize and demonstrate proper keyboarding techniques.

      c. Demonstrate keyboarding improvement in both speed and accuracy.

      d. Demonstrate the knowledge and ability to perform basic keyboarding and formatting.

      e. Identify components and special keys on the microcomputer keyboard.

    2. Proofreading and correcting errors

      a. Use terminology related to proofreading.

      b. Identify the characteristics of a good proofreader.

      c. Identify common types of errors.

      d. Identify steps in proofreading.

      e. Recognize and write proofreading/editing marks.

      f. Demonstrate the ability to use common proofreading marks correctly.

    3. Word processing concepts

      a. Identify placement of the parts of a business letter.

      b. Identify types of letter styles and be able to prepare letters in these formats.

      c. Know the difference between open and mixed punctuation.

      d. Know the postal service regulations in preparing envelopes.

e. Identify parts and be able to properly format memorandums.

f. Identify the format of a table.

g. Demonstrate the ability to prepare:

    (1) Mailable letters using different styles.

    (2) Envelopes according to U.S. Postal Service regulations.

    (3) Memorandums.

    (4) Tables and charts.

B. Filing

1. Alphabetic and numeric filing

a. **MODULE A: FILING BASICS**

    (1) Identify basic filing terminology.

    (2) List four methods of filing.

    (3) List basic filing supplies.

    (4) Recognize types of filing equipment.

    (5) Define micrographics.

b. **MODULE B: ALPHABETIC FILING**

    (1) Identify terminology related to alphabetic filing.

    (2) List steps in filing correspondence.

    (3) Identify reasons for misfiling.

    (4) Apply filing rules to coding, indexing, and alphabetizing personal names.

    (5) Apply filing rules to coding, indexing, and alphabetizing business names.

c. **MODULE C: NUMERIC FILING**

    (1) Identify terminology related to numeric filing.

    (2) List characteristics of the numeric filing system.

    (3) Identify basic types of numeric filing systems.

(4) Apply basic numeric filing rules.

2. Electronic filing

a. Identify electronic filing terminology.

b. Apply electronic filing concepts.

C. Operating office machines

1. Reprographics

a. **MODULE A: LAYOUT AND DESIGN**

(1) Identify terminology related to layout and design.

(2) List tools, supplies, and equipment used in preparing a layout.

(3) Convert between scales or line gauge measuring systems.

(4) Identify copy layout preparation considerations.

(5) List procedures to use when making a layout.

(6) Match type and letter styles to message of layout.

(7) Identify paper types and their uses.

(8) Prepare a layout including:

(a) Thumbnail sketches.

(b) Rough layout.

(c) Comprehensive layout.

a. **MODULE B: SUPPLEMENTARY MACHINES**

(1) Identify terms, safety procedures, and characteristics of operating a collator.

(2) Identify terms, safety procedures, and characteristics of operating a paper cutter.

(3) Identify terms, safety procedures, and characteristics of operating a paper drill.

(4) Identify terms, safety procedures, and characteristics of operating a saddleback stapler.

(5) Identify terms, safety procedures, and characteristics of operating a paper folder.

(6) Identify terms, safety procedures, and characteristics of operating a padding press.

(7) Identify terms, safety procedures, and characteristics of operating a punch and binder.

(8) Identify terms, safety procedures, and characteristics of operating a jogger.

(9) Demonstrate the ability to operate the:

  (a) Collator.

  (b) Paper cutter.

  (c) Paper drill.

  (d) Stapler.

  (e) Paper folder.

  (f) Padding press.

  (g) Punch and binder.

  (h) Paper jogger.

c. **MODULE C: COPY MACHINES**

(1) Match terms related to copying reprographics.

(2) Describe features of the digital copier process.

(3) Identify for each segment of copier classification how many copies per minute, where used, and list features.

(4) List ten copier features and describe any three of them, using paragraph form with correct grammar and punctuation.

(5) List five advantages of using copiers.

(6) Using paragraph form with correct grammar and punctuation, describe four methods of controlling copier operating procedures.

(7) Demonstrate correct copy preparation techniques.

(8) Using paragraph form with correct grammar and punctuation, discuss copyright use and how it affects you.

d. **MODULE D: FLUID DUPLICATION PROCESS**

(1) Identify terminology related to the fluid duplication process.

(2) Explain the fluid duplication process, and identify the parts of the fluid duplicator.

(3) Identify the procedures in preparing a spirit master and a thermal master.

(4) Prepare and duplicate a spirit master.

(5) Prepare and duplicate a thermal master.

e. **MODULE E: STENCIL DUPLICATION PROCESS**

(1) Match terms relating to stencil duplication with their correct definitions.

(2) Describe the stencil duplicator operation.

(3) Describe the parts of a stencil pack and how to use the stencil guide marks.

(4) Place the steps for preparing and correcting a stencil in the proper order.

(5) Describe and demonstrate various styli and drawing procedures.

(6) List the procedures for operating an electronic stencil maker.

(7) Describe causes of and remedies for stencil duplication problems.

(8) Demonstrate the ability to:

  (a) Prepare a stencil.
  (b) Operate an electronic stencil maker.
  (c) Operate a stencil duplicator.
  (d) Clean and change color.

f. **MODULE F: OFFSET PROCESS**

  (1) Define terms related to the offset process.

  (2) Identify the offset process and systems.

  (3) List advantages and disadvantages of using the offset.

  (4) Identify the types of masters and platemakers.

  (5) Identify the ability to prepare and duplicate an offset master.

  (6) Demonstrate the ability to follow offset operating procedures.

  (7) Identify careers and new technology in the area of offset printing.

g. **MODULE G: DESKTOP PUBLISHING**

  (1) Recognize desktop publishing terms.

  (2) Compare methods of traditional publishing and desktop publishing.

  (3) List the components of desktop publishing.

  (4) List basic areas of planning to consider when preparing a graphics document for desktop publishing.

  (5) Demonstrate the tools and procedures for producing simple and advanced documents, using available desktop publishing procedures.

2. Electronic calculator applications

  a. Apply the terms and definitions necessary for operating the electronic calculator in mathematical business problems.

  b. Demonstrate the ability to use the touch system on the electronic calculator for computation of simple and complex mathematical problems.

3. Computer applications

  a. Define and use formatting and information processing terminology.

  b. Define information processing.

c. Describe the steps in a document cycle.

d. Categorize the production features of word processing software.

e. Identify uses of function keys sometimes used with word processing software.

f. Create, revise, spell check, and print a hard copy of the document.

g. Produce documents to include the following format changes: line spacing, line alignment, type styles, margin adjustments.

D. Communicating effectively

1. Traditional and electronic mail

a. Identify mail handling terminology.

b. Classify the various types of mail.

c. Identify various postal services.

d. Identify procedures involved in processing incoming and outgoing mail.

e. Identify various types of electronic mail.

2. Telephone skills

a. Properly define telephone terminology.

b. Demonstrate characteristics of good listening skills.

c. Demonstrate positive techniques of handling incoming telephone calls.

d. Demonstrate positive techniques of placing outgoing telephone calls.

e. Compare the various parts of the telephone directory.

f. Demonstrate the ability to take messages.

3. Written communication skills

a. Identify terminology related to written communications.

b. Identify and compose various types of business letters.

c. Use proper formatting techniques in preparation of various types of business documents.

4. Language usage skills

a. Apply spelling rules.

b. Identify and correctly use various punctuation marks.

c. Identify and apply rules for capitalization.

d. Identify and apply rules for writing sentences.

E. Social implications of computer usage

1. Social implications

a. Identify terminology related to computer crime, computer users, and new computer devices and techniques.

b. Identify the major issues and technological developments related to computers and society.

c. Describe the ethical and legal issues that have arisen as a result of the computer revolution.

d. Identify privacy issues involved with electronic data storage.

e. Explain the reasons for concern about the reliability of computer systems.

III. Analysis of student competencies

IV. Course evaluation

V. Examination

ACTIVITIES 1-2: PERSONAL SUCCESS AND THE BUSINESS ENVIRONMENT--ANALYSIS OF CONTENT IN RELATION TO OBJECTIVES

INSTRUCTIONS: **Break into groups designated by your teacher. Your group has been assigned a specific section from Business Office Clerical/Services. After reviewing the units within the section, make an oral report to your class, having each member of the group give a presentation.**

For each unit, report:

A. Section and unit titles.

B. Major objectives(s).

C. Synopsis of unit.

D. Importance of the unit relative to the personal success and the office environment.

ACTIVITY 3: RECOGNIZING LEVELS OF PERFORMANCE

INSTRUCTIONS: **From the list of the Business Office Clerical/Services course competencies, rate your personal achievement for each of the competencies.**

Circle a 4 if you feel that you have **mastered** the competency.

Circle a 3 if you feel that you have an **average mastery** of the competency.

Circle a 2 if you feel that you have a **fair mastery** of the competency.

Circle a 1 if you feel that you have only a **minimal mastery or** if you **have not had the opportunity to master the competency.**

COMPETENCY PERFORMANCE EVALUATION

(4=Maximum--1= Minimum)

COMPETENCIES

I. Keyboarding

1. Keyboarding Skills

4 3 2 1 1. Identify terminology related to basic keyboarding.
4 3 2 1 2. Recognize and demonstrate proper keyboarding techniques.
4 3 2 1 3. Demonstrate keyboarding improvement in both speed and accuracy.
4 3 2 1 4. Demonstrate the knowledge and ability to perform basic keyboarding and formatting.
4 3 2 1 5. Identify components and special keys on the microcomputer keyboard.

2. Proofreading and Correcting Errors

4 3 2 1 1. Use terminology related to proofreading.
4 3 2 1 2. Identify the characteristics of a good proofreader.
4 3 2 1 3. Identify common types of errors.
4 3 2 1 4. Identify steps in proofreading.
4 3 2 1 5. Recognize and write proofreading/editing marks.
4 3 2 1 6. Demonstrate the ability to use common proofreading marks correctly.

3. Word Processing Concepts

4 3 2 1 1. Identify placement of the parts of a business letter.
4 3 2 1 2. Identify types of letter styles and be able to prepare letters in these formats.
4 3 2 1 3. Know the difference between open and mixed punctuation.
4 3 2 1 4. Know the postal service regulations in preparing envelopes.
4 3 2 1 5. Identify parts and be able to properly format memorandums.
4 3 2 1 6. Identify the format of a table.
4 3 2 1 7. Demonstrate the ability to prepare:
4 3 2 1 a. Mailable letters using different styles.
4 3 2 1 b. Envelopes according to U.S. Postal Service regulations.
4 3 2 1 c. Memorandums.
4 3 2 1 d. Tables and charts.

II. Filing

1. Alphabetic and numeric filing

MODULE A: Filing Basics

4 3 2 1 1. Identify terminology related to filing basics.
4 3 2 1 2. List four methods of filing.
4 3 2 1 3. List basic filing supplies.
4 3 2 1 4. Recognize types of filing equipment.
4 3 2 1 5. Define micrographics.

MODULE B: Alphabetic Filing

4 3 2 1 1. Identify terminology related to alphabetic filing.
4 3 2 1 2. List steps in filing correspondence.
4 3 2 1 3. Identify reasons for misfiling.
4 3 2 1 4. Apply filing rules to coding, indexing, and alphabetizing personal names.

COMPETENCIES

4 3 2 1 5. Apply filing rules to coding, indexing, and alphabetizing business names.

MODULE C: Numeric Filing

4 3 2 1 1. Identify terminology related to numeric filing.
4 3 2 1 2. List parts of numeric filing.
4 3 2 1 3. Identify basic types of numeric filing systems.
4 3 2 1 4. Apply numeric filing rules.

2. Electronic Filing

4 3 2 1 1. Identify electronic filing terminology.
4 3 2 1 2. Apply electronic filing concepts.

III. Operating Office Machines

1. Reprographics

MODULE A: Layout And Design

4 3 2 1 1. Identify by matching terminology related to layout and design.
4 3 2 1 2. List tools, supplies, and equipment used in preparing a layout.
4 3 2 1 3. Convert between scales or line gauge measuring systems.
4 3 2 1 4. Identify layout copy preparation considerations.
4 3 2 1 5. List procedures to use when making a layout.
4 3 2 1 6. Match type and letter styles to message of layout.
4 3 2 1 7. Identify paper types and their uses.
4 3 2 1 8. Prepare a layout including:
4 3 2 1 a. Thumbnail sketches.
4 3 2 1 b. Rough layout.
4 3 2 1 c. Comprehensive layout.

MODULE B: Supplementary Machines

4 3 2 1 1. Identify terms, safety procedures, and characteristics of operating a collator.
4 3 2 1 2. Identify terms, safety procedures, and characteristics of operating a paper cutter.
4 3 2 1 3. Identify terms, safety procedures, and characteristics of operating a paper drill.
4 3 2 1 4. Identify terms, safety procedures, and characteristics of operating a saddleback stapler.
4 3 2 1 5. Identify terms, safety procedures, and characteristics of operating a paper folder.
4 3 2 1 6. Identify terms, safety procedures, and characteristics of operating a padding press.
4 3 2 1 7. Identify terms, safety procedures, and characteristics of operating a punch and binder.
4 3 2 1 8. Identify terms, safety procedures, and characteristics of operating a jogger.
4 3 2 1 9. Demonstrate the ability to operate the:
4 3 2 1 a. Collator.
4 3 2 1 b. Paper cutter.
4 3 2 1 c. Paper drill.
4 3 2 1 d. Stapler.
4 3 2 1 e. Paper folder.
4 3 2 1 f. Padding press.
4 3 2 1 g. Punch and binder.
4 3 2 1 h. Paper jogger.

COMPETENCIES

MODULE C: Copy Machines

4 3 2 1 1. Match terms related to copying reprographics.
4 3 2 1 2. Describe features of the digital copier process.
4 3 2 1 3. Identify for each segment of copier classification how many copies per minute, where used and, list features.
4 3 2 1 4. List ten copier features and describe any three of them, using paragraph form with correct grammar and punctuation.
4 3 2 1 5. List five advantages of using copiers.
4 3 2 1 6. Using paragraph form with correct grammar and punctuation, describe four methods of controlling copier operating procedures.
4 3 2 1 7. Demonstrate correct copy preparation techniques.
4 3 2 1 8. Using paragraph form with correct grammar and punctuation, discuss copyright use and how it affects you.

MODULE D: Fluid Duplication Process

4 3 2 1 1. Identify terminology related to the fluid duplication process.
4 3 2 1 2. Explain the fluid duplication process, and identify the parts of the fluid duplicator.
4 3 2 1 3. Identify the procedures in preparing a spirit master and a thermal master.
4 3 2 1 4. Prepare and duplicate a spirit master.
4 3 2 1 5. Prepare and duplicate a thermal master.

MODULE E: Stencil Duplication Process

4 3 2 1 1. Match terms relating to stencil duplication with their correct definitions.
4 3 2 1 2. Describe the stencil duplicator operation.
4 3 2 1 3. Describe the parts of a stencil pack and how to use the stencil guide marks.
4 3 2 1 4. Place the steps for preparing and correcting a stencil in the proper order.
4 3 2 1 5. Describe and demonstrate various styli and drawing procedures.
4 3 2 1 6. List the procedures for operating an electronic stencil maker.
4 3 2 1 7. Describe causes of and remedies for stencil duplication problems.
4 3 2 1 8. Demonstrate the ability to:
4 3 2 1 a. Prepare a stencil.
4 3 2 1 b. Operate an electronic stencil maker.
4 3 2 1 c. Operate a stencil duplicator.
4 3 2 1 d. Clean and change color.

MODULE F: Offset Process

4 3 2 1 1. Define terms related to the offset process.
4 3 2 1 2. Identify the offset process and systems.
4 3 2 1 3. List advantages and disadvantages of using the offset.
4 3 2 1 4. Identify the types of masters and platemakers.
4 3 2 1 5. Identify the ability to prepare and duplicate an offset master.
4 3 2 1 6. Demonstrate the ability to follow offset operating procedures.
4 3 2 1 7. Identify careers and new technology in the area of offset printing.

COMPETENCIES

MODULE G: Desktop Publishing

4 3 2 1 1. Recognize desktop publishing terms.
4 3 2 1 2. Compare methods of traditional publishing and desktop publishing.
4 3 2 1 3. List the components of desktop publishing.
4 3 2 1 4. List basic areas of planning to consider when preparing a graphics document for desktop publishing.
4 3 2 1 5. Demonstrate the tools and procedures for producing simple and advanced documents, using available desktop publishing procedures.

2. Electronic Calculator Applications

4 3 2 1 1. Apply the terms and definitions necessary for operating the electronic calculator in mathematical business problems.
4 3 2 1 2. Demonstrate the ability to use the touch system on the electronic calculator for computation of simple and complex mathematical problems.

3. Computer Applications

4 3 2 1 1. Define and use formatting and information processing terminology.
4 3 2 1 2. Define information processing.
4 3 2 1 3. Describe the steps in a document cycle.
4 3 2 1 4. Categorize the production features of word processing software.
4 3 2 1 5. Identify uses of function keys sometimes used with word processing software.
4 3 2 1 6. Create, revise, spell check, and print a hard copy of the document.
4 3 2 1 7. Produce documents to include the following format changes: line spacing, line alignment, type styles, margin adjustments.

IV. Communicating Effectively

1. Traditional and Electronic Mail

4 3 2 1 1. Identify mail handling terminology.
4 3 2 1 2. Classify the various types of mail.
4 3 2 1 3. Identify procedures involved in processing incoming and outgoing mail.
4 3 2 1 4. Identify various postal services.
4 3 2 1 5. Identify various types of electronic mail.

2. Telephone Skills

4 3 2 1 1. Properly define telephone terminology.
4 3 2 1 2. Demonstrate characteristics of good listening skills.
4 3 2 1 3. Demonstrate positive techniques of handling incoming telephone calls.
4 3 2 1 4. Demonstrate positive techniques of placing outgoing telephone calls.
4 3 2 1 5. Compare the various parts of the telephone directory.
4 3 2 1 6. Demonstrate the ability to take messages.

3. Written Communication Skills

4 3 2 1 1. Identify terminology related to written communications.

COMPETENCIES

4 3 2 1 2. Identify and compose various types of business letters.
4 3 2 1 3. Use proper formatting techniques in preparation of various types of business documents.

4. Language Usage Skills

4 3 2 1 1. Apply spelling rules.
4 3 2 1 2. Identify and correctly use various punctuation marks.
4 3 2 1 3. Identify and apply rules for capitalization.
4 3 2 1 4. Identify and apply rules for writing sentences.

COMPETENCIES

V. Social Implications of Computer Usage

1. Social Implications

4 3 2 1 1. Identify terminology related to computer crime, computer users, and new computer devices and techniques.
4 3 2 1 2. Identify the major issues and technological developments related to computers and society.
4 3 2 1 3. Describe the ethical and legal issues that have arisen as a result of the computer revolution.
4 3 2 1 4. Identify privacy issues involved with electronic data storage.
4 3 2 1 5. Explain the reasons for concern about the reliability of computer systems.

ACTIVITY 4: ASSESSING THE OBJECTIVES AND COURSE CONTENT

INSTRUCTIONS: **Working in the same group and section and units as in Activity 1, assign each member of the group a specific portion of a section. Have each group member prepare seven review questions with answers which could be used as examination questions. As part of the seven questions, include two that relate to skill development. Key in the questions following the instructions provided by your teacher so that they can be printed out and copied for your classmates.**

APPENDIX A

REFERENCE ADDRESSES

LIST OF PUBLISHERS

ADDISON-WESLEY PUBLISHING
CO., INC.
Reading, MA 01867

ALLYN & BACON
College Division
Rockleigh, NJ 07647

AMERICAN BANKERS ASSN.
1120 Connecticut Ave. NW
Washington, DC 20036

ANAHEIM PUBLISHING CO.
2632 Saturn Street
Brea, CA 92621

ARCO PUBLISHING, INC.
Educational Division
215 Park Avenue South
New York, NY 10003

AVA RESOURCES
2020 N. 14th Street
Arlington, VA 22201

BANTAM BOOKS
666 Fifth Avenue
New York, NY 10103

BOBBS-MERRILL EDUCATIONAL
PUBLISHERS
P.O. Box 7080
Indianapolis, IN 46206

ROBERT J. BRADY, CO.
A Prentice-Hall Co.
Bowie, MD 20715

BROOKS/COLE PUBLISHING CO.
540 Arego Street
Monterey, CA 93940

WILLIAM C. BROWN PUBLISHING
2460 Kerper Blvd.
Dubuque, IA 52001

CAREER AIDS, INC.
0417 Nordhoff St.
Dept. K 65
Chatsworth, CA 91311

CBS COLLEGE PUBLISHING
383 Madison Avenue
New York, NY 10017

CHILTON BOOK COMPANY
School and Library Dept
Radnor, PA 19089

CHRONICLE GUIDANCE PUBL., INC
Aurora Street Extension
P.O. Box 1190
Moravia, NY 13118-1190

COLLEGE BOARD PUBLICATIONS
The College Board
888 Seventh Ave.
New York, NY 10106

CURRICULUM PUBLICATIONS
CLEARINGHOUSE
46 Horrbin Hall
Macomb, IL 61455

CURTIN & LONDON, INC.
135 West 50th Street
New York, NY 10020

DATAPRO
1805 Underwood Blvd.
Delran, NJ 08075

DELMAR PUBLISHING INC.
2 Computer Drive West
Box 15-015
Albany, NY 12212

THE DRYDEN PRESS
P.O. Box 36
Lavallette, NJ 08735

EDITS
P.O. Box 7234
San Diego, CA 92107

EDUCATIONAL FILMSTRIPS
1405 19th Street
Huntsville, TX 77340

GLENCOE PUBLISHING CO.
8301 Ambassador Row
Dallas, TX 75247

GLENCOE PUBLISHING CO.
17337 Ventura Blvd.
Encino, CA 91316

GREGG/MCGRAW HILL
13955 Manchester Road
Manchester, MD 63011

GREGG DIVISION
McGraw-Hill Book Co.
1221 Avenue of the Americas
New York, NY 10020

HARPER & ROW
6780 Sierra Court
Suite N
Dublin, CA 94566

HARPER & ROW
Keystone Ind. Park
Scranton, PA 18512

HBJ/MEDIA SYSTEMS CORP
757 Third Avenue
New York, NY 10164

HEMPHILL
1400 Wather
Austin, TX 78703

HOUGHTON-MIFFLIN CO.
One Beacon Street
Boston, MA 02107

IRWIN PUBLISHING CO
1818 Ridge Road
Homewood, IL 60430

MPC EDUCATIONAL PUBLISHERS
839 White Plains Road
Bronx, NY 10467

MAYFIELD PUBLISHING CO.
285 Hamilton Avenue
Palo Alto, CA 94301

MEDIA SYSTEMS, INC.
757 Third Avenue
New York, NY 10017

CHARLES E. MERRILL PUBL. CO.
1200 Alum Creek Drive
Columbus, OH 43216

MILLIKEN PUBLISHING CO.
Box 21579
St. Louis, MO 63132

NATIONAL OCCUPATIONAL CO.
TESTING INSTITUTE
318 Johnson Hall
Ferris State College
Big Rapids, MI

NATIONAL PUBLIC RADIO
Cassette Catalog
Cassette Publishing
2025 M Street N.W.
Washington, DC 20036

NATIONAL TEXTBOOK CO.
4255 West Touhy Avenue
Lincolnwood, IL 60646-1975

OHIO STATE UNIVERSITY
Vocational Instructional
Materials Laboratory
154 W. Twelfth Ave.
Columbus, OH 43210-1302

PEARSON
9219 Chimney Corner
Dallas, TX 75243

PRENTICE-HALL, INC.
Englewood Cliffs, NJ 07632

PRENTICE-HALL MEDIA
ServCode DX
150 White Plains Rd.
Tarrytown, NY 10591

RADIO SHACK EDUCATION DIVISION
1400 One Tandy Center
Ft. Worth, TX 76102-2805

RANDOM HOUSE SCHOOL DIVISION
Dept. 9232
400 Hahn Road
Westminister, MD 21157

RESTON PUBLISHING CO.
A Prentice-Hall Co.
11480 Sunset Hills Road
Reston, VA 22090

THE H. M. ROWE CO.
624 N. Gilmore Street
Baltimore, MD 21217

SCIENCE RESEARCH ASSN., INC.
College & Vocational Studies
155 N. Wacker Drive
Chicago, IL 60606

SOUTHWESTERN PUBLISHING CO.
5101 Madison Road
Cincinnati, OH 45227

STATEWIDE TEACHING AIDS
5845 Gardner Hwy.
Alexandria, LA 71306

TAB BOOKS
Blue Ridge
Summit, PA 17214

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New York, NY 10619

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Kansas City, MO 64111

SOFTWARE DIGEST
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Dallas, TX 75252
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645 Stewart Avenue
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American Society for Training and Development (available by membership only)
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Washington, DC 20024

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Association of Information Systems Professionals
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Willow Grove, PA 19090

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1805 Underwood Boulevard
Delran, NJ 08075

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1805 Underwood Boulevard
Delran, NJ 08075

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Seybold Publications, Inc.
Box 644
Media, PA 19063

PROFESSIONAL ORGANIZATIONS

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Willow Grove, PA 19090
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Delran, NJ 08075
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Irvine, CA 92717
(714)833-6911

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University of Oregon
1787 Agate Street
Eugene, OR 97403
(503)686-4408

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State University of New York
Stony Brook, NY 11094
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(703)860-8300

NATIONAL EDUCATION ASSOCIATION
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Washington, D.C. 20036

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Cleveland, OH 44115
(216)566-9308

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9401 West Beloit Road, Suite 101
Milwaukee, WI 53227
(414)321-0880

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Kansas City, MO 64111
(816)531-7010

TEXAS BUSINESS EDUCATION ASSOCIATION
Bette Carpenter, Executive Secretary
Amarillo, TX 79109

TEXAS COMPUTER EDUCATION ASSOCIATION
7131 Midbury
Dallas, TX 75230
(214)361-9472

BUSINESS JOURNALS

BUSINESS EDUCATION FORUM
National Business Education Assn.
1914 Association Drive
Reston, VA 22091
The journal features articles for teachers of secretarial programs, typewriting, accounting, clerical programs, and basic business, as well as economics, marketing and distribution, communication, and data processing.

BUSINESS EDUCATION JOURNAL
Emporia State University
Division of Business and Business Education
1200 Commercial St.
Emporia, KS 66801
The journal contains general business topics with emphasis on business production and teacher education.

BUSINESS EDUCATION WORLD
Gregg Division
McGraw-Hill Book Company
1221 Avenue of the Americas
New York, NY 10020
Innovative application of teaching methodology, educational concepts, descriptions of new curricula and trends in business and office education subjects. Free to business teachers.

BUSINESS HORIZONS
Graduate School of Business
Indiana University
Bloomington, IN 47405
Articles by academics and business people on significant business issues, trends, and research projects.

DELTA PI EPSILON JOURNAL
Delta Pi Epsilon National Office
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JOURNAL OF BUSINESS EDUCATION
Heldref Publications
4000 Albermarie St. NW
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VOCED
formerly, AMERICAN VOCATIONAL JOURNAL
2020 N. 14th Street
Arlington, VA 22201
The journal of the American Vocational Association published for teachers, administrators, counselors, and laypersons involved in the task of preparing people for work. The journal gives a balanced view of both the theoretical and practical aspects of vocational education.

OTHER BUSINESS PUBLICATIONS

THE BALANCE SHEET
South-Western Publishing Co.
5101 Madison Rd.
Cincinnati, OH 45227
This publication is free to teachers, and features articles of current interest relating to business and economic course offerings at the high school and postsecondary levels.

MODERN OFFICE PROCEDURES MAGAZINES
Pent/IPC
1111 Chester Avenue
Cleveland, OH 44114
Business/office market magazine featuring office procedures and utilization of new technological developments in computers, business machines, furnishings, and supplies.

THE OFFICE
Office Publications, Inc.
1200 Summer Street
Stamford, CT 06905
The magazine discusses many aspects of office practice and management for both executives and office managers. Articles include topics such as systems analysis, programming, employee relations, applications of computers, and product/equipment announcements.

OFFICE GUIDE
Bureau of Business Practices
24 Rope Ferry Road
Waterford, CT 06385-9985
Issued twice each month, the six-page publication offers office hints and shortcuts that can be used as a training tool to upgrade office personnel.

OFFICE GUIDE FOR WORKING WOMEN
Bureau of Business Practices
24 Rope Ferry Road
Waterford, CT 06385-9985
The magazine offers general articles and regular features on typing, vocabulary, and grammar applicable to office workers and/or secretarial science students.

THE OFFICE PROFESSIONAL
1316 Sam Bass Circle
Round Rock, TX 78664
Provides reliable information about office systems and procedures, secretarial methods, management thinking, and office technology. Also features articles on communication techniques, professional human relations skills, and the latest approaches to career development.

OFFICE TALKS
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Waterford, CT 06385-9985
Featuring office techniques, personal appearance, office etiquette, cosmetics, and hygiene for secretaries.

OPEN ENTRIES
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Vocational Education
Florida State University
Stone Building
Tallahassee, FL 32306
A nationwide communication link for educators involved in competency-based vocational education that encourages exchange of information on competency-based learning materials, development of new guides, packets, audiovisual materials, and computer-based resources.

P.S. FOR PROFESSIONAL SECRETARIES
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THE SECRETARY
Professional Secretaries International
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TEXAS BUSINESS EDUCATOR
Texas Business Educational Assn.
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Amarillo, TX 79109
A semiannual bulletin of the activities of the Texas Business Education Association, plus articles of current interest to business educators.

TODAY'S OFFICE
Hearst Business Communications
UTP Division
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Garden City, NY 11530
A professional business magazine covering the office.

VIEWPOINTS IN BUSINESS EDUCATION
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Bronx, NY 10467
A teaching methods and materials newsletter for business education teachers.

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East Texas State University
Commerce, TX 75429
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APPENDIX B

COURSE DESCRIPTIONS AND CODES

Microcomputer Applications* 11673100
Grades 10-12, 1/2-1 unit

A cluster course which introduces basic concepts and provides hands-on skills related to microcomputer systems and applications. Special emphasis is placed on basic skills for the following: word processing, database, spreadsheet, telecommunications, desktop publishing, electronic image transfer, networking, integrated software, and social implications of using computers. This course is designed as a foundation course and provides preparation for advancement into the occupationally specific courses.

Office Support Systems 11673000
Grades 10-12, 1/2-1 unit

A cluster course which introduces the basic concepts and skills needed for general office positions. Instruction and skill development are provided in keyboarding, filing, financial activities, office machines, and securing and maintaining employment. This course provides entry-level employment skills for the office or for advancement into an occupationally specific course.

Business Financial Applications 11673200
Grades 10-12, 1/2-1 unit

A cluster course which introduces the basic concepts and skills necessary for employment in financial institutions. Special emphasis will be placed on banking operations, credit administration, types of loans, legal aspects of banking, and other financial institutions. This course provides entry-level information for working in a financial institution or for advancement into an occupationally specific course.

Business Information Processing* 11672100 (2+2)
Grades 11-12, 1-3 units (each year the course is taught)
Preemployment Laboratory or Cooperative Education

An occupationally specific course which introduces the concepts and skills for producing business documents and correspondence through the use of the document cycle and word processing equipment. Special emphasis is placed on automated management of business records, database management, and electronic spreadsheets. Management of information flow, electronic mail, desktop publishing, electronic bulletin boards, graphics, and on-line information services are also included. The course provides preparation for employment or advanced standing at the postsecondary level.

Office Administrative Systems 11672000 (2+2)
Grades 11-12, 1-3 units
Preemployment Laboratory or Cooperative Education

An occupationally specific course which includes advanced concepts and skills necessary for a general office position through a simulated office environment. Special emphasis is placed on keyboarding, records management, communications, operation of office machines, and the electronic production of business documents. The course prepares the student for office employment or advanced standing at the postsecondary level.

Business Computer Applications I* **1167220** **(2+2)**
Grades 11-12, 1-3 units ((each year the course is taught)
Preemployment Laboratory or Cooperative Education

An occupationally specific course which introduces the advanced concepts and skills related to computer applications. Special emphasis is placed on basic computer operations, word processing, database management, spreadsheet manipulation, telecommunciations, desktop publishing, and other high-level business application software. This course is designed to provide the foundation for more advanced computer applications designated in Business Computer Applications II or advanced standing at the postsecondary level.

Business Computer Applications II* **11672300**
Grades 11-12, 1-3 units
Preemployment Laboratory or Cooperative Education

An occupationally specific course which includes advanced concepts and skills related to advanced computer applications. Special emphasis is placed on teleprocessing, integrated software systems, computer-generated graphics, algorithmic approaches to problem solving, and introductory programming skills. This course provides preparation for employment in a business computer occupation or advanced standing at the postsecondary level.

Business Computer Programming I* **11672400** **(2+2)**
Grades 11-12, 1-3 units
Preemployment Laboratory or Cooperative Education

An occupationally specific course which emphasizes concepts and skills related to business computer programming. Special emphasis is placed on programming concepts and languages, programming concepts and languages, programming methodology, skills related to data storage, and an awareness of programming applications for business. This course is designed to lay a foundation for further occupationally specific business programming instruction or advanced standing at the postsecondary level.

Business Computer Programming II* **11672500**
Grades 11-12, 1-3 units
Preemployment Laboratory or Cooperative Education

An occupationally specific course which includes advanced concepts and skills related to business computer programming. Special emphasis is placed on bringing development efforts to full production status in environments, and on languages commonly used in development of commercial software for business applications. Concepts such as design, maintenance, testing, team development, and user documentation are included. This course prepares students for employment in a computer-related occupation or advanced placement at the postsecondary level.

Business Office Services, CVAE--12670500, VEH--13670500**
Grades 9-12, 1-3 units, CVAE
Grades 7-12, 1-3 units, VEH

A course which introduces basic concepts and skills needed for a general office position with concentration on the use of reprographic equipment, keyboarding, filing, and office machines. Special emphasis is placed on remediation in the areas of basic math and English usage, as well as securing and maintaining employment.

Business Office Clerical, CVAE--12670600, VEH--13670400**
Grades 9-12, 1-3 units, CVAE
Grades 7-12, 1-3 units, VEH

A course which introduces basic concepts and skills for a general office position with concentration on the use of keyboarding, filing, office machines, communications, and reprographics. Special emphasis is placed on remediation in the areas of basic math and English usage, as well as securing and maintaining employment.

* Recommended for approval to satisfy the computer science requirement for the advanced high school program.

** Students may enroll each year the course is offered

APPENDIX C

COMMON ESSENTIAL ELEMENTS
for all
OFFICE EDUCATION PROGRAMS

75.87 Office Education

(a) **The elements in this subsection are common to office education programs and shall be included in each course at the appropriate level. They are described here to preclude repetition in each course. Every school offering office education shall provide courses which include the following essential elements:**

(1) Leadership concepts and skills. The student shall be provided opportunities to:

- (A) demonstrate skills, characteristics, and responsibilities of leaders and effective group members;
- (B) demonstrate a knowledge of parliamentary procedure principles;
- (C) plan and conduct leadership activities; and
- (D) prepare for effective citizenship and for participation in our democratic society.

(2) Concepts and skills related to successful employment and/or postsecondary training. The student shall be provided opportunities to:

- (A) identify employment opportunities and preparation requirements in the chosen field;
- (B) identify effective methods to secure and terminate employment;
- (C) demonstrate effective communication skills both oral and written, and follow through on assigned tasks;
- (D) demonstrate dependability and punctuality;
- (E) demonstrate productive work habits and attitudes;
- (F) understand the importance of taking pride in the quality of work performed;
- (G) recognize the dignity in work;
- (H) develop skills in planning and organizing work;
- (I) apply required methods and sequences when performing tasks;
- (J) apply principles of time management and work simplification when performing assigned tasks;

(K) identify ethical practices and responsibilities; and

(L) understand the importance of the application of organizational policies and procedures.

(3) Concepts and skills associated with entrepreneurship. The student shall be provided opportunities to:

(A) identify opportunities for business ownership;

(B) understand the risk and profit motive factor;

(C) understand the elements and advantages of the free enterprise system; and

(D) explain the role of small business in the free enterprise system.

(4) Concepts and skills related to safety and safe working conditions. The student shall be provided opportunities to identify and apply safe working practices to all training situations.

(5) Concepts and skills associated with human relations and personality development. The student shall be provided opportunities to:

(A) understand the importance of maintaining good health and proper appearance for effective job performance;

(B) understand oneself and others;

(C) exercise self-control;

(D) accept and use criticism;

(E) recognize basic human relationships as they relate to business success; and

(F) demonstrate characteristics for successful working relationships.

(6) Concepts and skills related to personal and business management. The student shall be provided opportunities to:

(A) explain how management assists in reaching personal and family goals;

(B) explain the management process;

(C) describe the role of management in controlling stress;

(D) identify and understand personal checking accounts;

(E) identify and understand personal loan application processes;

(F) identify and understand different financial institutions;

(G) identify the role and functions of business management;

(H) understand the lines of authority; and

(I) identify effective supervisory techniques.

OFFICE EDUCATION ESSENTIAL ELEMENTS

OFFICE ADMINISTRATIVE SYSTEMS

(Blended Course)

75.87

(b) Office Administrative Systems (1, 2, or 3 units) shall include the following essential elements:

(1) Concepts and skills related to office administration. The student shall be provided opportunities to:

(A) identify duties and responsibilities common to most offices;

(B) delineate the workflow of an office or system;

(C) relate office operations to the entire business organization;

(D) establish priorities and develop organizational abilities;

(E) interpret and apply information from resource materials; and

(F) identify and apply concepts and skills related to safety and safe working conditions in the office environment.

(2) Concepts and skills related to successful employment and/or postsecondary training. The student shall be provided opportunities to:

(A) identify employment opportunities and preparation requirements in the chosen field; and

(B) identify effective methods to secure, maintain, and terminate employment.

(3) Concepts and skills necessary for effective communications in the office environment. The student shall be provided opportunities to:

(A) identify proper techniques in business telephone usage;

(B) prepare effective communication using the document production cycle;

(C) identify and use proper oral and written language skills relating to business;

(D) identify current terminology relating to business and technology; and

(E) identify classes of mail, special mailing services, and procedures of handling incoming and outgoing mail.

(4) Concepts and skills related to information management and control. The student shall be provided opportunities to:

- (A) identify equipment and supplies necessary for a filing system;
- (B) identify correct usage in applying terminology and procedures for indexing, coding, and filing using the alphabetic, numeric, subject, and geographic system;
- (C) identify, describe, and/or demonstrate procedures for controlling manual records and computerized information; and
- (D) identify a transfer and retention schedule.

(5) Concepts and skills necessary for the operation of office equipment. The student shall be provided opportunities to:

- (A) use the touch system to produce accurate mailable business documents using electronic equipment;
- (B) demonstrate the ability to enter and retrieve data using a computer;
- (C) use the touch system on the electronic calculator/computer to compute business problems;
- (D) identify appropriate reprographic processes for specific tasks; and
- (E) demonstrate ability to produce legible copies.

(6) Concepts and skills associated with the social implications of computers. The student shall be provided opportunities to:

- (A) examine issues concerning responsible use of computer systems; and
- (B) understand the social ramifications of computer applications related to privacy, values, and reliability of systems.

OFFICE EDUCATION ESSENTIAL ELEMENTS

OFFICE ADMINISTRATIVE SYSTEMS II

(State Board Approval Pending Fall 1990)

75.87

Office Administrative Systems II (1, 2, or 3 units) shall include the following essential elements:

(1) Advanced concepts and skill simulation related to office administration. The student shall be provided opportunities to:

- (A) perform duties and responsibilities common to most offices;
- (B) establish the workflow of an office or system;
- (C) relate office operations to the entire business organization;
- (D) establish priorities and develop organizational abilities; and
- (E) interpret data, make decisions, and apply information from resource materials.

(2) Advanced concepts and skills necessary for effective communications in the office environment. The student shall be provided opportunities to:

- (A) apply proper techniques in business telephone usage;
- (B) identify the use of teleprocessing systems for data exchange in an actual business setting;
- (C) compose and produce effective communication using the document production cycle;
- (D) use proper oral and written language skills relating to business; and
- (E) identify current terminology relating to business and technology.

(3) Advanced concepts and skills related to information management and control. The student shall be provided opportunities to:

- (A) demonstrate procedures for organizing and filing materials;
- (B) identify correct usage in applying terminology and procedures for indexing, coding, and filing using the alphabetic, numeric, subject, and geographic system; and

(C) demonstrate procedures for accessing and maintaining computerized information.

(4) Advanced concepts and skills simulation for the operation of office equipment. The student shall be provided opportunities to:

(A) demonstrate keyboarding speed and accuracy necessary for entry-level employment;

(B) produce mailable business documents using microcomputers;

(C) demonstrate the ability to enter and retrieve data using a computer;

(D) use the touch system on the electronic calculator/computer to compute business problems; and

(E) utilize appropriate reprographic processes for specific tasks, including desktop publishing.

OFFICE EDUCATION ESSENTIAL ELEMENTS

BUSINESS INFORMATION PROCESSING

75.87

(c) **Business Information Processing (1, 2, or 3 units) shall include the following essential elements:**

(1) Concepts and skills related to effective communication and production of business documents. The student shall be provided opportunities to:

(A) demonstrate proficiency in business English, spelling, and proofreading;

(B) identify and apply correct format for business correspondence and documents;

(C) demonstrate basic information processing concepts and processes to employ the appropriate steps in document production;

(D) demonstrate proficiency in transcription;

(E) identify and use computer-based tools for document production;

(F) demonstrate basic knowledge and usage of business machines; and

(G) identify proper techniques in business telephone usage.

(2) Concepts and skills related to business records management. The student shall be provided opportunities to:

(A) identify procedures for controlling manual records by applying terminology and procedures for indexing, coding, and filing alphabetically;

(B) identify and apply procedures for automated management of business records, at least including use of database management software for storage, retrieval, manipulation, selection, and reporting of records;

(C) identify business applications of electronic spreadsheets and understand and/or demonstrate fundamental concepts and operational procedures related to their use.

(3) Concepts and skills related to management of information flow out of, into, and within an office. The student shall be provided opportunities to:

(A) understand concepts related to computer-aided preparation and distribution of personalized correspondence, at least including use of mail merge and electronic mail.

(B) identify tools for preparing information for mass distribution, at least including desktop publishing, production of presentation graphics, and maintenance of electronic bulletin boards;

(C) understand the concepts of using communication systems both for accessing remotely stored information (at least including use of on-line information services) and for transmission of outgoing information; and

(D) understand concepts related to transporting of images electronically.

(4) Identify characteristics of contemporary office systems related to information processing and management. The student shall be given opportunities to:

(A) observe office activity related to information processing and information management;

(B) discuss responsibilities and procedures involved in business information processing with individuals working in the field;

(C) read and discuss current literature related to business information processing; and

(D) identify emerging information processing tools and understand their impact on business information processing.

OFFICE EDUCATION ESSENTIAL ELEMENTS

BUSINESS INFORMATION PROCESSING II

(State Board Approval Pending Fall 1990)

75.87

Business Information Processing II (1, 2, or 3 units) shall include the following elements:

(1) Concepts and skills related to effective communication and production of business documents. The students shall be provided opportunities to:

- (A) demonstrate proficiency in business English, spelling, proofreading in production of original business documents, and/or editing work previously created;
- (B) produce documents through the use of text manipulation and/or high-level integrated software; and
- (C) compose, dictate, and transcribe business documents.

(2) Concepts and skills related to business information management. The students shall be provided opportunities to apply decision making skills:

- (A) using advanced procedures and applications for automated management of business information using a database management system.
- (B) using advanced applications of electronic spreadsheets.

(3) Concepts and skills related to management of information flow out of, into, and within an office. The students shall be provided opportunities to:

- (A) integrate word processing, database, and spreadsheet software using import/export commands and/or ASCII files;
- (B) understand the process for setup installation and use of software by reading documentation prepared by the software manufacturer;
- (C) identify and apply concepts of layout and design in desktop publishing, including graphics, fonts, and paper for final copy;
- (D) demonstrate proficiency in the use of presentation graphics to aid in presentation of an oral report;
- (E) identify criteria for selection and evaluation of software; and
- (F) apply concepts related to transmitting information electronically.

OFFICE EDUCATION ESSENTIAL ELEMENTS

BUSINESS OFFICE SERVICES

75.87

(d) Coordinated Vocational Academic Education (CVAE) Business Office Services (1-2 units) shall include the following essential elements:

(1) Concepts and skills involved in keyboarding. The student shall be provided opportunities to:

(A) demonstrate the skills involved in keyboarding;

(B) apply appropriate procedures for proofreading and correcting errors; and

(C) demonstrate and identify information processing concepts in keyboarding.

(2) Concepts and skills necessary for filing. The student shall be provided opportunities to:

(A) demonstrate procedures used in alphabetic and numeric filing; and

(B) identify procedures used in electronic filing.

(3) Concepts and skills related to the operation of office equipment. The student shall be provided opportunities to:

(A) identify the procedures and equipment used in completing layouts for reprographics;

(B) identify the procedures used in operating reprographic equipment;

(C) demonstrate the ability to prepare masters and to operate the offset press;

(D) demonstrate the ability to use desktop publishing features;

(E) demonstrate the ability to solve mathematical problems using the touch method on the electronic calculator/computer keypad; and

(F) demonstrate the ability to enter and retrieve data on a microcomputer.

(4) Concepts and skills necessary for processing mail. The student shall be provided opportunities to:

(A) identify the procedures involved in processing incoming and outgoing mail; and

(B) identify the procedures involved in transmitting mail electronically.

(5) Concepts and skills necessary for effective communications. The student shall be provided opportunities to:

- (A) develop effective listening skills;
- (B) identify and use proper business techniques when using the telephone;
- (C) prepare effective written communications; and
- (D) identify and use proper language usage skills in business.

(6) Concepts and skills necessary for securing and maintaining employment. The student shall be provided opportunities to:

- (A) demonstrate the skills necessary for job application and interview; and
- (B) apply human relations skills and the ability to work with others.

(7) Concepts and skills associated with the social implications of computers. The student shall be provided opportunities to:

- (A) examine issues concerning responsible use of computer systems;
- (B) understand the social ramifications of computer applications related to privacy, values, and reliability of systems.

OFFICE EDUCATION ESSENTIAL ELEMENTS

BUSINESS COMPUTER APPLICATIONS I

(Blended Course)

75.87

(e) **Business Computer Applications I (1, 2, or 3 units) shall include the following essential elements:**

(1) Concepts and skills related to computer operations. The student shall be provided opportunities to:

(A) demonstrate comprehension of computer-related vocabulary;

(B) describe the functions of the components of a computer system;

(C) demonstrate and apply the capabilities of an operating system; and

(D) explore the concepts of telecommunication techniques and networking.

(2) Concepts and skills related to word processing. The student shall be provided opportunities to:

(A) demonstrate word processing concepts;

(B) apply higher-level capabilities of word processing tools and software; and

(C) understand the procedures and recognize the importance of merging data processing and word processing.

(3) Concepts and skills related to spreadsheets. The student shall be provided opportunities to:

(A) demonstrate higher-level spreadsheet concepts; and

(B) apply higher-level capabilities of spreadsheets.

(4) concepts and skills related to database management. The student shall be provided opportunities to:

(A) demonstrate database concepts, procedures, and capabilities; and

(B) apply higher-level capabilities of database management.

(5) Concepts and skills related to advanced application software. The student shall be provided opportunities to:

(A) discuss integration of people and computers for productivity;

(B) demonstrate the ability to apply information processing concepts and skills to realistic business situations;

(C) demonstrate the ability to apply information processing concepts and skills to realistic personal situations; and

(D) identify tools for preparing information for mass distribution including desktop publishing, graphics, and maintenance of electronic bulletin boards.

(6) Concepts and skills associated with the social implications of computers. The student shall be provided opportunities to

(A) examine issues concerning responsible use of computer systems; and

(B) understand the social ramifications of computer applications related to privacy, values, and reliability of systems.

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OFFICE EDUCATION ESSENTIAL ELEMENTS

BUSINESS COMPUTER APPLICATIONS II

75.87

(f) **Business Computer Applications II (1, 2, or 3 units) shall include the following essential elements:**

(1) Concepts and skills related to teleprocessing. The student shall be provided opportunities to:

(A) describe the basic components of a teleprocessing system;

(B) demonstrate an understanding of network organization; and

(C) understand and identify the use of a teleprocessing system for data exchange in an actual business setting.

(2) Concepts and skills related to integrated systems. The student shall be provided opportunities to:

(A) understand and identify the advantages, capabilities, and functions of integrated software systems;

(B) manipulate data through the use of an integrated system; and

(C) use integrated systems to merge data from different applications.

(3) Concepts and skills related to graphics. The student shall be provided opportunities to:

(A) analyze and interpret business graphs and charts; and

(B) demonstrate graphic representation of data.

(4) Concepts and skills related to algorithmic approaches to problem solving. The student shall be provided opportunities to:

(A) demonstrate the ability to solve problems using appropriate analytical techniques; and

(B) demonstrate an awareness of the phases related to systems analysis and design.

(5) Concepts and skills related to applying logic to programming. The student shall be provided opportunities to:

- (A) apply the appropriate analytical techniques in solving programming problems;
- (B) translate the applied solution into a common programming or macro language; and
- (C) demonstrate the ability to debug and audit a solution.

OFFICE EDUCATION ESSENTIAL ELEMENTS

BUSINESS COMPUTER PROGRAMMING I

(Blended Course)

75.87

(g) **Business Computer Programming I (1, 2, or 3 units) shall include the following essential elements:**

(1) Concepts and skills related to computer data processing. The student shall be provided opportunities to:

(A) demonstrate comprehension of computer-related terminology; and

(B) identify the major components of computer systems.

(2) Concepts and skills related to hardware utilization. The student shall be provided opportunities to:

(A) review computer hardware operations;

(B) understand categorization of hardware according to size, application, and configurations;

(C) reinforce the ability to use basic operating systems; and

(D) review the proper care of hardware and software.

(3) Concepts and skills associated with algorithmic approaches to problem solving. The student shall be provided opportunities to:

(A) demonstrate the skills related to structured approaches to problem solving; and

(B) translate problems into logical steps using appropriate program design techniques.

(4) Concepts and skills associated with commands and statements of a programming language. The student shall be provided opportunities to:

(A) identify and use variables, constants, and literals;

(B) demonstrate the use of input and output statements;

(C) demonstrate and use conditional and unconditional branching statements;

(D) demonstrate and use of looping techniques; and

(E) develop and use subroutines for modular programming.

(5) Concepts and skills related to program execution, testing, debugging, and documentation. The student shall be provided opportunities to:

(A) demonstrate the ability to execute computer programs with sample data;

(B) distinguish between syntax and logic errors;

(C) apply standard debugging procedures; and

(D) develop internal and external program documentation including record layout and report spacing charts.

(6) Concepts and skills associated with data storage. The student shall be provided opportunities to:

(A) demonstrate an understanding of the types of media for data storage;

(B) identify methods of storing data on storage devices; and

(C) create and maintain a program to store and retrieve data from a file.

(7) Concepts and skills associated with the social implications of computers. The student shall be provided opportunities to:

(A) examine issues concerning responsible use of computer systems; and

(B) understand the social ramifications of computer applications related to privacy, values, and reliability of systems.

OFFICE EDUCATION ESSENTIAL ELEMENTS

BUSINESS COMPUTER PROGRAMMING II

75.87

(h) **Business Computer Programming II (1, 2, or 3 units) shall include the following essential elements:**

(1) Concepts and skills related to application system development. The student shall be provided opportunities to:

(A) demonstrate a comprehension of the system development;

(B) demonstrate a comprehension of the implementation process; and

(D) develop user documentation.

(2) Concepts and skills related to structured programming application. The student shall be provided opportunities to:

(A) develop an understanding of structured programming;

(B) identify the concepts of random and sequential files;

(C) translate solutions into major structural elements of a program;

(D) translate solutions into language statements for input, processing, and output; and

(E) develop ability to use an advanced operating system computer.

(3) Concepts and skills related to program testing. The student shall be provided opportunities to:

(A) develop test data and testing techniques;

(B) apply test data to programs run on the computer; and

(C) demonstrate the ability to debug and audit programs.

(4) Concepts and skills associated with software implementation and maintenance. The student shall be provided opportunities to:

(A) write documentation for maintaining a system;

(B) understand the process of implementing a system into production status; and

(C) develop an understanding of the programmer responsibilities in program maintenance.

OFFICE EDUCATION ESSENTIAL ELEMENTS

OFFICE SUPPORT SYSTEMS

75.87

(i) **Office Support Systems (1/2 or 1 unit) shall include the following essential elements:**

(1) Concepts and skills involved in keyboarding. The student shall be provided opportunities to:

(A) demonstrate the skill of keyboarding letters, memos, forms, and reports;

(B) apply appropriate procedures for proofreading and correcting errors; and

(C) demonstrate and identify information processing concepts in keyboarding.

(2) Concepts and skills necessary for filing. The student shall be provided opportunities to:

(A) demonstrate procedures used in alphabetic, numeric, subject, and geographic filing; and

(B) identify procedures used in electronic filing.

(3) Concepts and skills necessary for financial activities. The student shall be provided opportunities to:

(A) demonstrate the ability to maintain a checking account; and

(B) demonstrate the procedures involved in preparing a payroll and preparing tax reports.

(4) Concepts and skills necessary for processing mail. The student shall be provided opportunities to:

(A) identify the procedures involved in processing incoming and outgoing mail; and

(B) identify the procedures involved in transmitting mail electronically.

(5) Concepts and skills necessary for effective communications. The student shall be provided opportunities to:

(A) identify and use proper business techniques when using the telephone;

(B) prepare effective written communications; and

(C) identify and use proper language usage skills in business.

(6) Concepts and skills necessary for effective understanding of business operations. The student shall be provided opportunities to:

 (A) describe the role of business in the enterprise system; and

 (B) identify the general responsibilities of employees.

(7) Concepts and skills necessary for securing and maintaining employment. The student shall be provided opportunities to:

 (A) demonstrate the skills necessary for job application and interview; and

 (B) apply human relations skills and the ability to work with others.

OFFICE EDUCATION ESSENTIAL ELEMENTS

MICROCOMPUTER APPLICATIONS

75.87

(j) **Microcomputer Applications (1/2 or 1 unit) shall include the following essential elements:**

(1) Fundamental concepts and operational skills related to microcomputer systems. The student shall be provided opportunities to:

(A) understand the background and uses for computer systems;

(B) demonstrate competency in touch keyboarding, including technique, speed, and accuracy;

(C) understand the components of computer systems, including hardware, operating environments, and application software; and

(D) demonstrate competency in microcomputer systems operation.

(2) Concepts and skills necessary for microcomputer-based document production, formatting, and proofreading, at least including use of word processing software and automated spellchecking software. The student shall be provided opportunities to:

(A) identify and use the terminology related to word processing;

(B) demonstrate the operational procedures used in document production and page layout; and

(C) employ appropriate steps in producing documents.

(3) Concepts and skills necessary for use of microcomputer-based storage, retrieval, manipulation, and reporting information, at least including use of database management software. The student shall be provided opportunities to:

(A) identify and use the terminology related to information management;

(B) demonstrate the operational procedures and techniques used in information management software;

(C) use microcomputer software to design databases, enter and manipulate information, and produce reports (including graphic display of summary reports); and

(D) conduct keyword database searches using logic operations such as AND, OR, and NOT.

(4) Concepts and skills necessary for use of microcomputer-based computation, analysis, planning, and reporting with numeric data, at least including use of electronic spreadsheets. The student shall be provided opportunities to:

(A) identify and use the terminology related to electronic manipulation of numeric data;

(B) demonstrate operational procedures and techniques used with microcomputer software for processing numeric data;

(C) use microcomputer software for computation, analysis, planning, and reporting (including graphic display) with numeric data; and

(D) apply electronic spreadsheet software both through use of prepared templates and with student-designed problem solutions.

(5) Concepts and skills related to emerging microcomputer-based information processing tools. The student shall be provided opportunities to:

(A) understand the concept of exchanging information via telecommunication software, at least including electronic mail, remote bulletin board access, and access of on-line information services;

(B) understand and use features of integrated software packages to share data among applications;

(C) understand concepts and identify characteristics and uses associated with tools for desktop publishing and generation of presentation graphics;

(D) understand concepts related to transporting of textual and nontextual data both locally and remotely, at least including transporting of text and facsimile images electronically, and physical transfer of ultra-high-density storage media; and

(E) understand concepts related to networked and multi-user configurations.

(6) Concepts associated with the social implications of computers. The student shall be provided opportunities to:

(A) examine issues concerning responsible use of computer systems;

(B) understand the social ramifications of computer applications related to privacy, values, and reliability of systems; and

(C) understand the impact of computing on leisure and household management.

OFFICE EDUCATION ESSENTIAL ELEMENTS

BUSINESS FINANCIAL APPLICATIONS

75.87

(k) **Business Financial Applications (1/2 or 1 unit) shall include the following essential elements:**

(1) Concepts and skills related to banking operations. The student shall be provided opportunities to:

(A) identify and understand checking accounts;

(B) understand fundamentals of teller operations; and

(C) identify and understand bookkeeping systems.

(2) Concepts and skills related to credit administration. The student shall be provided opportunities to:

(A) understand methods of credit investigation; and

(B) understand concepts related to the use of credit analysis.

(3) Concepts and skills related to loans. The student shall be provided opportunities to:

(A) identify types of loans and purposes; and

(B) demonstrate and understand calculation of interest and payoff.

(4) Concepts and skills related to legal aspects of banking. The student shall be provided opportunities to:

(A) understand customer and consumer services; and

(B) understand regulations of financial intermediaries.

(5) Concepts and skills related to other financial institutions. The student shall be provided opportunities to:

(A) understand and explore savings and loan operations; and

(B) understand and explore credit union operations.

OFFICE EDUCATION ESSENTIAL ELEMENTS

MEDICAL ADMINISTRATIVE SYSTEMS

(Specialty Course--State Board Approval Pending Fall 1990)

75.87

(l.1) Medical Administrative Systems (1, 2, or 3 units) shall include the following essential elements:

(1) Concepts and skills related to effective communication and production of medical documents. The students shall be provided opportunities to:

(A) identify current terminology relating to the medical industry and to technology;

(B) demonstrate proficiency in business English, spelling, and proofreading;

(C) demonstrate keyboarding speed and accuracy necessary for entry-level employment;

(D) identify and apply correct format for medical correspondence and documents;

(E) apply word processing skills using computer-based tools by employing appropriate steps for document production;

(F) compose and prepare effective medical communications using the document production cycle;

(G) demonstrate proficiency in transcription;

(H) apply proper techniques in business telephone usage;

(I) use proper oral and written language skills relating to business;

(J) recognize classes of mail, special mailing services, and procedures of handling incoming and outgoing mail;

(K) understand concepts related to transporting images electronically; and

(L) identify reprographic copying techniques.

(2) Concepts and skills related to information management and control of medical documents. The student shall be provided opportunities to:

(A) identify procedures for controlling manual records by applying terminology and procedures for indexing, coding, and filing alphabetically; and

(B) identify, describe, and/or demonstrate procedures for controlling manual records and computerized information.

(3) Concepts and skills necessary for use of microcomputer-based medical document production, formatting, and proofreading, using word processing software and automated spellchecking, thesaurus, and grammar checking software. The student shall be provided opportunities to:

- (A) identify and use terminology related to word processing;
- (B) demonstrate the operational procedures used in medical document production and page layout; and
- (C) employ appropriate steps in producing medical documents.

(4) Concepts and skills necessary for the operation of office equipment. The student shall be provided opportunities to:

- (A) use the touch system on the electronic calculator/computer to compute business problems related to a medical office; and
- (B) identify reprographic copying techniques.

(5) Concepts and skills related to administering a medical office. The student shall be provided opportunities to:

- (A) perform duties and responsibilities common to most offices.

(6) Concepts and skills related to processing of medical insurance. The student shall be provided opportunities to:

- (A) identify, describe, and/or demonstrate procedures used in processing government claims; and
- (B) identify, describe, and/or demonstrate procedures used in processing private carrier claims.

(7) Concepts and skills related to the daily accounting cycle. The student shall be provided opportunities to:

- (A) demonstrate procedures used in operating a pegboard system; and
- (B) demonstrate procedures used in a computerized medical office accounting system.

OFFICE EDUCATION ESSENTIAL ELEMENTS

LEGAL ADMINISTRATIVE SYSTEMS

(Specialty Course--State Board Approval Pending Fall 1990)

75.87

(1.2) **Legal Administrative Systems (1, 2, or 3 units) shall include the following essential elements:**

(1) Concepts and skills related to effective communication and production of legal documents. The student shall be provided opportunities to:

(A) identify current terminology relating to the legal business and to technology;

(B) demonstrate proficiency in business English, spelling, and proofreading;

(C) demonstrate keyboarding speed and accuracy necessary for entry-level employment;

(D) identify and apply correct format for legal correspondence and documents;

(E) apply word processing skills using computer-based tools by employing appropriate steps for document production;

(F) compose and prepare effective legal communications using the document production cycle;

(G) demonstrate proficiency in transcription;

(H) apply proper techniques in business telephone etiquette;

(I) use proper oral and written language skills relating to business;

(J) recognize classes of mail, special mailing services, and procedures of handling incoming and outgoing mail; and

(K) understand concepts related to transporting images electronically.

(2) Concepts and skills related to information management and control of legal documents. The student shall be provided opportunities to:

(A) identify procedures for controlling manual records by applying terminology and procedures for indexing, coding, and filing alphabetically; and

(B) identify, describe, and/or demonstrate procedures for controlling manual records and computerized information.

(3) Concepts and skills necessary for use of microcomputer-based legal document production, formatting, and proofreading, using word processing software and automated spellchecking, thesaurus, and grammar-checking software. The student shall be provided opportunities to:

(A) identify and use terminology related to word processing;

(B) demonstrate the operations procedures used in legal document production and page layout; and

(C) employ appropriate steps in producing legal documents.

OFFICE EDUCATION ESSENTIAL ELEMENTS

INSURANCE ADMINISTRATIVE SYSTEMS

(Specialty Course--State Board Approval Pending Fall 1990)

75.87

(1.3) **Insurance Administrative Systems (1, 2, or 3 units) shall include the following essential elements:**

(1) Concepts and skills related to general insurance. The student shall be provided opportunities to:

(A) understand and explain the origins of insurance;

(B) identify the different types of losses that property owners are faced with and which are covered by insurance policies;

(C) explain the different risks that are involved which warrant obtaining insurance;

(D) differentiate between pure risks and speculative risks that may be encountered by the insured;

(E) identify requirements of an insurable risk and the items which may prevent obtaining insurance;

(F) explain society's costs/benefits with insurance and the reasons in favor of purchasing insurance;

(G) interpret insurance regulations as they pertain to policyholders;

(H) identify the procedures required for obtaining financial solvency;

(I) explain the activities of agents and the importance of agents to an agency;

(J) analyze the methods used by agencies in pricing insurance policies;

(K) assemble and prepare for submission insurance contracts;

(L) explain how insurance can be justified as being a product;

(M) identify and explain the different parts contained in an insurance policy;

(N) compare and contrast the duties applicable to an agent as those of a broker;

(O) diagram and explain the path of an insurance policy from the point of contact with the prospect to settlement of a claim; and

  (P) simulate the myriad of activities performed by the members of an insurance agency.

(2) Concepts and skills related to automobile insurance. The student shall be provided opportunities to:

  (A) understand and apply insurance terminology correctly in written and oral communication;

  (B) explain the role of insurance concepts to society;

  (C) differentiate the sections contained in a personal automobile policy;

  (D) identify the information contained in an insuring agreement;

  (E) prepare quotations for coverages by use of the rating manual and computer;

  (F) explain the different coverages available and the advantages and disadvantages of each;

  (G) illustrate the effect of variables in preparing quotes, i.e., limits, classifications, territories, and symbols; and

  (H) prepare appropriate documents for insurance transactions.

(3) Concepts and skills related to homeowners insurance. The student shall be provided opportunities to:

  (A) explain the concept regarding eligibility for insurance coverage;

  (B) identify the information contained in the insuring agreement;

  (C) identify and understand personal checking accounts;

  (D) identify and understand personal loan application processes;

  (E) identify and understand different financial institutions;

  (F) identify the role and functions of business management;

  (G) understand the lines of authority; and

  (H) identify effective supervisory techniques.

OFFICE EDUCATION ESSENTIAL ELEMENTS

BANKING AND FINANCIAL SYSTEMS

(Specialty Course--State Board Approval Pending Fall 1990)

75.87

(1.4) **Banking and Financial Systems (1, 2, or 3 units) shall include the following essential elements (specialty course):**

(1) Concepts and skills related to effective communication and production of documents used in banking. The students shall be provided opportunities to:

(A) identify current terminology relating to banking industry and to technology;

(B) demonstrate proficiency in business English, spelling, and proofreading;

(C) demonstrate keyboarding speed and accuracy necessary for entry-level employment;

(D) identify and apply correct format for correspondence and documents used in banking and financial institutions;

(E) apply word processing skills using computer-based tools by employing appropriate steps for document production;

(F) compose and prepare effective communications using the document production cycle;

(G) use proper oral and written language skills relating to business;

(H) apply proper techniques in business telephone; and

(I) understand concepts related to transporting images electronically.

(2) Concepts and skills related to information management and control of banking and other financial documents. The student shall be provided opportunities to:

(A) identify procedures for controlling manual records and applying terminology and procedures for indexing, coding, and filing alphabetically; and

(B) identify, describe, and/or demonstrate procedures for controlling manual records and computerized information.

(3) Concepts and skills necessary for the operation of office equipment. The student shall be provided opportunities to:

(A) use the touch system on the electronic calculator/computer to compute business problems related to banking and financial institutions; and

(B) identify reprographic copying techniques.

(4) Concepts and skills related to administration duties in the banking industry. The student shall be provided opportunities to:

(A) perform duties and responsibilities common to most banking institutions.

(5) Concepts and skills related to banking operations. The student shall be provided opportunities to:

(A) trace the history of banking and money;

(B) identify and understand checking accounts;

(C) understand fundamentals of teller operations; and

(D) identify and understand bookkeeping systems.

(6) Concepts and skills related to credit administration. The student shall be provided opportunities to:

(A) understand methods of credit investigation; and

(B) understand concepts related to the use of credit analysis.

(7) Concepts and skills related to loans. The student shall be provided opportunities to:

(A) identify types of loans and purposes; and

(B) demonstrate and understand calculation of interest and payoff.

(8) Concepts and skills related to legal aspects of banking. The student shall be provided opportunities to:

(A) understand customer and consumer services; and

(B) understand regulations of financial intermediaries.

(9) Concepts and skills related to other financial institutions. The student shall be provided opportunities to:

(A) understand and explore savings and loan operations; and

(B) understand and explore credit union operations.

OFFICE EDUCATION ESSENTIAL ELEMENTS

BUSINESS OFFICE CLERICAL

75.87

(m) Coordinated Vocational Academic Education (CVAE) Business Office Clerical (1-2 units) shall include the following essential elements:

(1) Concepts and skills involved in keyboarding. The student shall be provided opportunities to:

(A) demonstrate the skills involved in keyboarding;

(B) apply appropriate procedures for proofreading and correcting errors; and

(C) demonstrate and identify information processing concepts in keyboarding.

(2) Concepts and skills necessary for filing. The student shall be provided opportunities to:

(A) demonstrate procedures used in alphabetic and numeric filing; and

(B) identify procedures used in electronic filing.

(3) Concepts and skills related to the operation of office equipment. The student shall be provided opportunities to:

(A) identify the procedures and equipment used in completing layouts for reprographics;

(B) identify the procedures used in operating reprographic equipment;

(C) demonstrate the ability to use desktop publishing features;

(D) demonstrate the ability to solve mathematical problems using the touch method on the electronic calculator/computer keypad; and

(E) demonstrate the ability to enter and retrieve data on a microcomputer.

(4) Concepts and skills necessary for processing mail. The student shall be provided opportunities to:

(A) identify the procedures involved in processing incoming and outgoing mail; and

(B) identify the procedures involved in transmitting mail electronically.

(5) Concepts and skills necessary for effective communications. The student shall be provided opportunities to:

(A) develop effective listening skills;

(B) identify and use proper business techniques when using the telephone;

(C) prepare effective written communications; and

(D) identify and use proper language usage skills in business.

(6) Concepts and skills necessary for securing and maintaining employment. The student shall be provided opportunities to:

(A) demonstrate the skills necessary for job application and interview; and

(B) apply human relations skills and the ability to work with others.

(7) Concepts and skills associated with the social implications of computers. The student shall be provided opportunities to:

(A) examine issues concerning responsible use of computer systems;

(B) understand the social ramifications of computer applications related to privacy, values, and reliability of systems.

APPENDIX D

SUGGESTED MINIMUM LIST OF EQUIPMENT, FURNITURE, AND SUPPLIES

(for a quality office education program)

Equipment and furniture:

- A computer or a terminal for each student
    - Macintosh/IBM compatible 286 minimum
    - 640 K minimum storage
    - Two disk drives preferably one 5 1/4 and one 3 1/2 inch
    - Hard disk 30 meg.
    - Enhanced 101 keyboard with keypad
    - High resolution graphics capability
    - Several expansion slots
- A fully equipped teacher's computer station
    - Monitors
        - Color
        - High resolution at least EGA
        - Swivel/tilt monitor bases
    - Printers (A combination of the following printers may be needed--using one printer to each two computers as a rule of thumb)
        - A 24-pin dot matrix printer with near-letter-quality/high speed modes
        - Letter-quality printers
        - Laser printer (preferably postscript)
    - Other computer peripherals and equipment
        - Scanner (If you will be doing a lot of graphics work.)
        - Automatic switch boxes for switching access to each attached computer/terminal
        - Mouse for each computer or terminal
        - At least two modems and access to dedicated phone line
        - Extra cables for attaching various peripherals
        - Surge protectors
- Electronic calculators
- Electronic typewriters for each station
- Reprographics equipment
    - Large volume, multiple feature copy machine
    - Drill press
    - Hydraulic paper cutter

Spirit duplicator
Tabletop offset press
Tabletop offset press
Stencil duplicator
Mastermaker
Converter
Padding press
Thermofax
Collator
Folding machine
Paper jogger
Light tables and stools

New overhead projector with low heat/good cooling system

LCD computer panel for data projection

Pull-down movie screen

File cabinets and storage cupboards

Adjustable student work stations at appropriate height--enough for each student

Adjustable chairs, preferably rolling

Sink with adequate hot and cold water

Restroom

Supplies

Covers and keyboard covers

Sufficient number of diskettes for backups of each software programs for each computer

Computer paper, both laser and regular cut

Ribbons--standard black and colors

Locking diskette cases

Colored diskettes--each class uses a different color

Computer maintenance kit--including screwdrivers of various sizes, Q-tips, alcohol, screen-wipes, minivacuum, air vacuum

APPENDIX E

STEPS IN LESSON PLAN DEVELOPMENT

Because of the nature of the business office clerical and business office services courses, individual lesson plans for each day have not been provided. The sequence of units and production skills in this course are taught in a variety of ways because of the need for each program to meet the needs of its local population. The curriculum outlines at the beginning of each unit provide all of the necessary instructional information for the unit and are designed for your use in preparing lesson plans.

This guide was developed with flexibility, allowing the instructor to teach basic skills in a variety of methods. Although the guide is scoped and sequenced, many units can be incorporated into rotation schedules and can be performed independently by students. A sample lesson format is included.

Group Instructions

Several units of business office clerical/services may be taught by group instruction. These units are called battery units. Battery units are units, taught through group instruction, that all students will need regardless of their career objectives. Some of the battery units that could be taught through the battery system are:

Filing
Keyboarding Skills
Language Usage
Proofreading
Reprographics
Social Implications
Telephone Skills
Traditional and Electronic Mail
Word Processing Concepts
Written Communications

Independent Instructions

In independent instruction, the instructor needs to schedule students on all equipment or work stations related to the student's interest or career objective. Students' work needs to be individualized at these stations. Some students will be able to complete the project within two or three days; while others may not complete the work within a week. Avoid giving the faster student busy work. Try to provide training that will assist students in becoming more knowledgeable and more productive. Practice sets and software packages are ideal for independent instruction. Units that lend themselves to independent instruction include the following:

Computer Applications
Electronic Calculator Applications
Electronic Filing
Keyboarding Skills
Language Usage

Integrated Software and Simulations

The automated office is rapidly moving toward the systems concept. In this approach many information processing tools are used in an integrated manner. It is important for students to learn to function in this atmosphere. This can be done by the office simulation strategy, using integrated software packages.

Units that lend themselves to simulations through the use of integrated software include the following:

Electronic Filing
Reprographics
Computer Applications
Computer Concepts

Evaluation

The State Board of Education Rules for Curriculum states that students should be evaluated on a 0-100 scale with 70 and above receiving course credit. At the beginning of the year, you should establish the grading system for your class. Consideration should be given to how individualized instruction, battery instruction, attendance, etc., will affect the students' grades for the grading period.

In evaluating students on independent instruction, it is impossible to evaluate each job assigned. Therefore, on some assignments, answer sheets may be given to the students so they may check their answers with the teacher's key. On some assignments, the teacher might grade for specifics. For example, grade one paper for proofreading, one for typographical errors, one for format, etc. Since students may not be completing the same assignments, students may be given a grade sheet and assignment sheet for each rotation.

SAMPLE LESSON FORMAT

COURSE____________________ INSTRUCTOR____________________

Unit Title ____________________

LESSON TITLE ____________________

Estimated Time____________________(Hours or Days)

Essential Element(s)____________________

Domain(s) _____Cognitive ____Psychomotor ____Affective

Basic Skill(s) _____Reading ____Writing
____Mathematics

Student Competency(ies)____________________

____

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____

____

Teacher Preparation **Resources**

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Teacher Presentation **Teaching Strategies**

Student Activities **Resources**

Assignment(s)

Closure

Evaluation

PLANNING THE LESSONS

Divisions of the Lesson Plan

The best kind of teaching is based on good planning, good presentation, and a well-disciplined class. Good planning is based on a series of steps. Although individual lesson plans vary, the most common is the developmental plan.

1. **Unit Title**-Unit title identifies the broad area of which the specific lesson is a part.

2. **Lesson Title**--The lesson title identifies a category of the unit for which instruction is delivered.

3. **Estimated Time**--The time frame assists the instructor in determining the scope of each lesson so that the students are able to perform the competencies.

4. **Essential Elements**--Essential element or elements might be included within a lesson or a complete lesson. Identifying essential elements, if any, will assist the instructor in planning for instruction of the essential elements.

5. **Domains**--Lesson consists of three kinds: (1) cognitive domain (knowledge or information), (2) psychomotor domain (skills), and (3) affective domain (values or attitudes). Determining the kind of lesson assists the instructor in selecting the necessary teaching materials, strategies, and tools needed for a particular lesson.

6. **Basic Skills**--In preparing each lesson, the instructor needs to identify the basic skills which are a part of the lesson.

7. **Student Competencies**--Since the curriculum is performance-based instruction, students are expected to acquire specific competencies. These competencies need to be identified for each lesson.

8. **Teacher Preparation**--It is here that the instructor decides on the resources: supplies, materials, equipment, and other instructional items which will be needed for the lesson. The preparation might include charts, tables, books, field trips or other kinds of information. Here also, the preparation needed by students should be considered. Perhaps there has been a reading assignment or a notebook requested. Whatever the student needs for the lesson should be determined at this point.

9. **Teacher Presentation**--This is the part of the lesson in which the thing to be learned is presented. Presentation should proceed, step by step, simple to complex, with teaching points interspersed in the proper sequence. The instructor should think out the procedure or explanation beforehand and then develop it. Part of this process is selecting appropriate teaching strategies. Examples are: demonstration, questioning, discussion, drill, and lecture. Strategies should be selected based (1) on the kind of lesson being taught and (2) on the learning needs of the students for whom the instruction is intended.

10. **Student Activities**--Practicing the thing to be learned is the keynote of successful teaching and learning in the field of vocational/technical education. The activities assigned to the students are the part of the lesson that makes use of this principle by providing an opportunity for the students to do something about the thing learned.

11. **Closure**--Comes at the end of the lesson and ties everything together. Closure could be called a summary; however, with closure the instructor guides the students into seeing how the parts contribute to make the whole.

12. **Assignment**--The assignment part of the lesson may be considered a continuation of the student activities. Assignments provide a meaningful further application of the thing just learned. It is an aide to retention. One of the laws of learning is repetition. The assignment may also consist of preparation for the next lesson.

13. **Evaluation**--Both the teacher and the student need some method of feedback for establishing if learning has taken place. This system is broadly referred to as "evaluation."

    Student evaluation is usually thought of as:

    1) "paper and pencil" tests, and
    2) norm-referenced testing--comparing students on a scale of 0-100.

Student evaluation in vocational-technical subjects should include a variety of methods. Some suggestions are:

Norm-Referenced Testing. Norm-referenced testing is a form of educational measurement that ascertains an individual's performance in relation to the performance of other individuals on the same measuring device. Because the individual is compared with some normative group, such measures are described as norm-referenced. Examples: standardized objective tests, and teacher-prepared essay and objective tests.

Criterion-Referenced Testing. Criterion-referenced testing is a form of educational measurement that ascertains an individual's status with respect to some criterion or performance standard. Because the individual is compared with some established criterion, rather than with other individuals, these measures are described as "criterion-referenced." Examples:

1. Attached is a simple program. By the next class day, enter and run the program. The program must be debugged. A score of 100% is required.
2. Attached is a list of programming terminology. Define the terms. A score of 75% or higher is required. Maximum time is forty minutes.

Since the curriculum guide is performance-based instruction with specified student competencies, criterion-referenced testing is considered an excellent method for measuring student performance.

There are three essential steps to remember in implementing criterion-referenced measurement. They are:

1. Prior to instruction, prepare a set of instructional objectives for the unit.
2. Select appropriate assessment approaches/techniques to assess students' mastery of the stated objectives. The appropriateness of the technique selected will largely be determined by the nature of the skill or competency specified in the objective.
3. Match particular assessment techniques selected with the performance behaviors delineated in the instructional objectives. It is important that the specific test item corresponds to the level and type of behavior specified in the objective. In other words, test on the same level that you teach. The levels of the three domains are broken out in this Appendix.

Other methods of evaluation are: Teacher observation of skill and/or attitude, teacher-assigned projects, production measures, and accuracy measures.

MAJOR CATEGORIES IN THE COGNITIVE DOMAIN

Evaluation

involves acts of decision making, judging, or selecting based on criteria and rationale
requires synthesis in order to evaluate

Synthesis

combines elements to form new entity from original one
requires analysis in order to synthesize

Analysis

separates whole into its parts, until relationship among elements is clear
requires ability to apply information in order to analyze

Application

uses information in a situation different from original learning context
requires comprehension of information in order to apply in new situation

Comprehension

interprets, translates, summarizes, or paraphrases given information
requires knowledge in order to demonstrate comprehension

Knowledge

recognition and recall of facts and specifics

12 4

VERBS FOR STATING BEHAVIORAL OBJECTIVES

COGNITIVE DOMAIN

1. Knowledge--remembering previously learned materials

Cite
Define
Identify
Label
List
Match
Name
Quote
Recite
Reproduce
Pronounce
State

2. Comprehension--ability to grasp the meaning of material

Alter
Change
Convert
Depict
Describe
Explain
Give examples
Illustrate
Interpret
Paraphrase
Portray
Rephrase
Represent
Restate
Reword
Simplify
Substitute
Summarize
Translate
Vary

3. Application--ability to use learned material in new and concrete situations

Apply
Compute
Demonstrate
Direct
Discover
Employ
Evidence
Manifest
Manage
Predict
Prepare
Present
Relate
Show
Solve
Utilize

4. Analysis--ability to break down material into its component parts so that its organizational structure can be understood

Ascertain
Analyze
Associate
Designate
Determine
Diagnose
Diagram
Differentiate
Discriminate
Dissect
Distinguish
Divide
Examine
Find
Infer
Outline
Point out
Reduce
Separate

5. Synthesis--ability to put parts together to form a new whole

Combine
Compile
Compose
Conceive
Create
Design
Develop
Devise
Expand
Extend
Generalize
Integrate
Invent
Modify
Originate
Plan
Pose
Propose
Project
Rearrange
Revise
Rewrite
Synthesize
Theorize
Write

6. Evaluation ability--to judge the value of material for a given purpose

Appraise
Assess
Compare
Conclude
Contrast
Criticize
Critique
Deduce
Evaluate
Judge
Weigh

MAJOR CATEGORIES IN THE PSYCHOMOTOR DOMAIN

Naturalization

completes one or more skills with ease and becomes automatic with limited physical or mental exertion

Articulation

combines more than one skill in sequence with harmony and consistency

Precision

reproduces a skill with accuracy, proportion, and exactness; usually performed independent of original source

Manipulation

performs skill according to instruction rather than observation

Imitation

observes skill and attempts to repeat it

VERBS FOR STATING BEHAVIORAL OBJECTIVES

PSYCHOMOTOR DOMAIN

1. Perception--becoming aware of the action to be performed through sensory stimulation

Detect
Examine
Feel
Handle
Hear
Hold
Note
Notice
Observe
Perceive
Recognize
See
Sense
Smell
Taste
Touch

2. Set--becoming ready to act mentally, physically, and emotionally

Adjust
Check
Confirm
Decide
Estimate
Familiarize
Locate
Place
Position
Ready
Regulate
Select
Set
Set up
Sit
Situate
Stand
Station

3. Guided response--performing the action under supervision through imitation or trial and error

Attempt
Carry out
Copy
Duplicate
Experiment
Follow
Imitate
Mimic
Practice
Repeat
Reproduce
Test
Try

4. Mechanism--performing the act habitually with some degree of confidence

Acquire
Assemble
Complete
Conduct
Construct
Do
Execute
Gain
Improve
Maintain
Make
Manipulate
Measure
Operate
Pace
Perform
Proceed
Produce
Progress
Use

5. Complex overt response--performing the act automatically with high level of skill

Achieve
Accomplish
Advance
Attain
Automatize
Exceed
Excel
Master
Perfect
Reach
Refine
Succeed
Surpass
Transcend

MAJOR CATEGORIES IN THE AFFECTIVE DOMAIN

Characterizing

total behavior is consistent with values internalized

Organizing

committed to set of values as displayed by behavior

Valuing

displays behavior consistent with single belief or attitude in situations where he/she is not forced to comply or obey

Responding

complies with given expectations by attending or reacting to stimuli or phenomena; i.e., interests

Receiving

aware of; passively attending to certain phenomena and stimuli; i.e., listening

12 9

VERBS FOR STATING BEHAVIORAL OBJECTIVES

AFFECTIVE DOMAIN

1. Receiving--attending and becoming aware of a situation, idea, or process through the sensory organs

Acknowledge
Attend
Be aware
Listen
Look
Pay attention
Receive
Show alertness
Tolerate
View
Watch

2. Responding--doing something about a situation, idea, or process

Agree (to)
Answer
Ask
Assist
Be willing
Communicate
Comply
Consent
Contribute
Cooperate
Discuss
Follow up
Indicate
Inquire
Obey
Participate
Pursue
Question
React
Read
Reply
Request
Respond
Seek
Visit
Volunteer

3. Valuing--developing attitudes by choosing, prizing, cherishing

Accept
Adopt
Approve
Choose
Commit
Desire
Display
Endorse
Exhibit
Express
Form
Initiate
Prefer
Sanction

4. Organization--arranging values in priority according to a system

Adapt
Arrange
Categorize
Classify
Establish
Formulate
Group
Order
Organize
Rank
Rate
Systemize

5. Characterization--choosing the same values consistently to form a philosophy of life

Act
Advocate
Be consistent
Behave
Characterize
Conform
Continue
Defend
Devote
Disclose
Encourage
Endure
Exemplify
Function
Habituate
Incorporate
Influence
Justify
Maintain
Pattern
Persist
Preserve
Recommend
Remain
Retain
Reveal
Serve
Support
Uphold
Urge
Verify

APPENDIX F

BUSINESS OFFICE CLERICAL/SERVICES COMPETENCY CHECKLIST

(4= Mastery--1=Non Mastery)

COMPETENCIES

I. Keyboarding

1. Keyboarding Skills

4 3 2 1 1. Identify terminology related to basic keyboarding.
4 3 2 1 2. Recognize and demonstrate proper keyboarding techniques.
4 3 2 1 3. Demonstrate keyboarding improvement in both speed and accuracy.
4 3 2 1 4. Demonstrate the knowledge and ability to perform basic keyboarding and formatting.
4 3 2 1 5. Identify components and special keys on the microcomputer keyboard.

2. Proofreading and Correcting Errors

4 3 2 1 1. Use terminology related to proofreading.
4 3 2 1 2. Identify the characteristics of a good proofreader.
4 3 2 1 3. Identify common types of errors.
4 3 2 1 4. Identify steps in proofreading.
4 3 2 1 5. Recognize and write proofreading/editing marks.
4 3 2 1 6. Demonstrate the ability to use common proofreading marks correctly.

3. Word Processing Concepts

4 3 2 1 1. Identify placement of the parts of a business letter.
4 3 2 1 2. Identify types of letter styles and be able to prepare letters in these formats.
4 3 2 1 3. Know the difference between open and mixed punctuation.
4 3 2 1 4. Know the postal service regulations in preparing envelopes.
4 3 2 1 5. Identify parts and be able to properly format memorandums.
4 3 2 1 6. Identify the format of a table.
4 3 2 1 7. Demonstrate the ability to prepare:
4 3 2 1 a. Mailable letters using different styles.
4 3 2 1 b. Envelopes according to U.S. Postal Service regulations.
4 3 2 1 c. Memorandums.
4 3 2 1 d. Tables and charts.

II. Filing

1. Alphabetic and Numeric Filing

MODULE A: Filing Basics

4 3 2 1 1. Identify basic filing terminology.
4 3 2 1 2. List four methods of filing.
4 3 2 1 3. List basic filing supplies.
4 3 2 1 4. Recognize types of filing equipment.
4 3 2 1 5. Define micrographics.

MODULE B: Alphabetic Filing

4 3 2 1 1. Identify terminology related to alphabetic filing.
4 3 2 1 2. List steps in filing correspondence.
4 3 2 1 3. Identify reasons for misfiling.
4 3 2 1 4. Apply filing rules to coding, indexing, and alphabetizing personal names.

COMPETENCIES

4 3 2 1 5. Apply filing rules to coding, indexing, and alphabetizing business names.

MODULE C: Numeric Filing

4 3 2 1 1. Identify terminology related to numeric filing.
4 3 2 1 2. List characteristics of the numeric filing system.
4 3 2 1 3. Identify basic types of numeric filing systems.
4 3 2 1 4. Apply basic numeric filing rules.

2. Electronic Filing

4 3 2 1 1. Identify electronic filing terminology.
4 3 2 1 2. Apply electronic filing concepts.

III. Operating Office Machines

1. Reprographics

MODULE A: Layout And Design

4 3 2 1 1. Identify terminology related to layout and design.
4 3 2 1 2. List tools, supplies, and equipment used in preparing a layout.
4 3 2 1 3. Convert between scales or line gauge measuring systems.
4 3 2 1 4. Identify copy layout preparation considerations.
4 3 2 1 5. List procedures to use when making a layout.
4 3 2 1 6. Match type and letter styles to message of layout.
4 3 2 1 7. Identify paper types and their uses.
4 3 2 1 8. Prepare a layout including:
4 3 2 1 a. Thumbnail sketches.
4 3 2 1 b. Rough layout.
4 3 2 1 c. Comprehensive layout.

MODULE B: Supplementary Machines

4 3 2 1 1. Recognize the characteristics of a collator and identify the terms and safety precautions related to its operation.
4 3 2 1 2. Recognize the characteristics of a paper cutter and identify the terms and safety precautions related to its operation.
4 3 2 1 3. Recognize the characteristics of a paper drill and identify the terms and safety precautions related to its operation.
4 3 2 1 4. Recognize the characteristics of a saddleback stapler and identify the terms and safety precautions related to its operation.
4 3 2 1 5. Recognize the characteristics of a paper folder and identify the terms and safety precautions related to its operation.
4 3 2 1 6. Recognize the characteristics of a padding press and identify the terms and safety precautions related to its operation.
4 3 2 1 7. Recognize the characteristics of a punch and binder and identify the terms and safety precautions related to its operation.
4 3 2 1 8. Recognize the characteristics of a paper jogger and identify the terms and safety precautions related to its operation.

COMPETENCIES

4 3 2 1 9. Demonstrate the ability to operate the:
4 3 2 1 a. Collator.
4 3 2 1 b. Paper cutter.
4 3 2 1 c. Paper drill.
4 3 2 1 d. Saddleback stapler.
4 3 2 1 e. Paper folder.
4 3 2 1 f. Padding press.
4 3 2 1 g. Punch and binder.
4 3 2 1 h. Paper jogger.

MODULE C: Copy Machines

4 3 2 1 1. Match terms related to copier reprographics.
4 3 2 1 2. Describe features of the digital copier process.
4 3 2 1 3. Identify for each segment of copier classification the features, how many copies per minute, and where used.
4 3 2 1 4. List ten copier features and describe any three of them in paragraph form, using correct grammar and punctuation.
4 3 2 1 5. List five advantages of using copiers.
4 3 2 1 6. Describe in paragraph form, using correct grammer and punctuation, four methods of controlling copier operating procedures.
4 3 2 1 7. Demonstrate correct copy preparation techniques.
4 3 2 1 8. Discuss in paragraph form, using correct grammar and punctuation, copyright use and how it affects him/her.

MODULE D: Fluid Duplication Process

4 3 2 1 1. Identify terminology related to the fluid duplication process.
4 3 2 1 2. Explain the fluid duplication process and identify the parts of the fluid duplicator.
4 3 2 1 3. Identify the procedures in preparing a spirit master and a thermal master.
4 3 2 1 4. Prepare and duplicate a spirit master.
4 3 2 1 5. Prepare and duplicate a thermal master.

MODULE E: Stencil Duplication

4 3 2 1 1. Match terms relating to stencil duplication with their correct definitions.
4 3 2 1 2. Describe the stencil duplicator operation.
4 3 2 1 3. Describe the parts of a stencil pack and how to use the stencil guide marks.
4 3 2 1 4. Place the steps for preparing and correcting a stencil in the proper order.
4 3 2 1 5. Describe and demonstrate various styli and drawing procedures.
4 3 2 1 6. List the procedures for operating an electronic stencil maker.
4 3 2 1 7. Describe causes of and remedies for stencil duplication problems.
4 3 2 1 8. Demonstrate the ability to:
4 3 2 1 a. Prepare a stencil.
4 3 2 1 b. Operate an electronic stencil maker.
4 3 2 1 c. Operate a stencil duplicator.
4 3 2 1 d. Clean and change color.

COMPETENCIES

MODULE F: Offset Process

4 3 2 1 1. Define terms related to the offset process.
4 3 2 1 2. Identify the offset process and systems.
4 3 2 1 3. List advantages and disadvantages of using the offset.
4 3 2 1 4. Identify the types of masters and platemakers.
4 3 2 1 5. Demonstrate the ability to prepare and duplicate an offset master.
4 3 2 1 6. Demonstrate the ability to follow offset operating procedures.
4 3 2 1 7. Identify careers and new technology in the area of offset printing.

MODULE G: Desktop Publishing

4 3 2 1 1. Recognize desktop publishing terms.
4 3 2 1 2. Compare methods of traditional publishing and desktop publishing.
4 3 2 1 3. List the components of desktop publishing.
4 3 2 1 4. List basic areas of planning to consider when preparing a graphics document for desktop publishing.
4 3 2 1 5. Demonstrate the tools and procedures for producing simple and advanced documents using desktop publishing procedures available.

2. Electronic Calculator Applications

4 3 2 1 1. Apply the terms and definitions necessary for operating the electronic calculator in mathematical business problems.
4 3 2 1 2. Demonstrate the ability to use the touch system on the electronic calculator for computation of simple and complex mathematical problems.

3. Computer Applications

4 3 2 1 1. Define and use formatting and information processing terminology.
4 3 2 1 2. Define information processing.
4 3 2 1 3. Describe the steps in a document cycle.
4 3 2 1 4. Categorize the production features of word processing software.
4 3 2 1 5. Identify uses of function keys sometimes used with word processing software.
4 3 2 1 6. Create, revise, spell check, and print a hard copy of the document.
4 3 2 1 7. Produce documents to include the following format changes: line spacing, line alignment, type styles, and margin adjustments.

IV. Communicating Effectively

1. Traditional and Electronic Mail

4 3 2 1 1. Identify mail handling terminology.
4 3 2 1 2. Classify the various types of mail.
4 3 2 1 3. Identify various postal services.
4 3 2 1 4. Identify procedures involved in processing incoming and outgoing mail.
4 3 2 1 5. Identify various types of electronic mail.

COMPETENCIES

2. Telephone Skills

4 3 2 1 1. Properly define telephone terminology.
4 3 2 1 2. Demonstrate characteristics of good listening skills.
4 3 2 1 3. Demonstrate positive techniques of handling incoming telephone calls.
4 3 2 1 4. Demonstrate positive techniques of placing outgoing telephone calls.
4 3 2 1 5. Compare the various parts of the telephone directory.
4 3 2 1 6. Demonstrate the ability to take messages.

3. Written Communication Skills

4 3 2 1 1. Identify terminology related to written communications.
4 3 2 1 2. Identify and compose various types of business letters.
4 3 2 1 3. Use proper formatting techniques in preparation of various types of business documents.

COMPETENCIES

4. Language Usage Skills

4 3 2 1 1. Apply spelling rules.
4 3 2 1 2. Identify and correctly use various punctuation marks.
4 3 2 1 3. Identify and apply rules for capitalization.
4 3 2 1 4. Identify and apply rules for writing sentences.

V. Social Implications of Computer Usage

1. Social Implications

4 3 2 1 1. Identify terminology related to computer crime, computer users, and new computer devices and techniques.
4 3 2 1 2. Identify the major issues and technological developments related to computers and society.
4 3 2 1 3. Describe the ethical and legal issues that have arisen as a result of the computer revolution.
4 3 2 1 4. Identify privacy issues involved with electronic data storage.
4 3 2 1 5. Explain the reasons for concern about the reliability of computer systems.

APPENDIX G

ACKNOWLEDGEMENT

The module 7 Overview of the Vocational Special Needs Teachers Training Curriculum has been reprinted with permission as this appendix. Teachers are encouraged to refer to the original publication to learn more about working with special needs populations. The character font size and line spacing have been changed in this appendix to save space.

The project was developed in 1987 by Craig R. Colby, Ed.D., of Texas A&M University. Linda H. Parrish, Ph.D., Texas A&M University, and Jerry L. Wircenski, Ph.D., North Texas State University, were the project directors.

The vocational special needs teacher training curriculum was developed pursuant to a contract with the Texas Education Agency's Vocational Education Special Projects. Contractors or grantees undertaking such projects under Agency sponsorship are encouraged to freely express their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Texas Education Agency position or policy.

This information is presented as an appendix to help office education teachers with planning the modification of instruction for special population. Many of the concepts and ideas presented are sound practices to be used with normal populations.

The entire 10-module training curriculum is available through the Extension, Instruction and Materials Center, University of Texas at Austin, P.O. Box 7218, Austin, Texas 78713-7218.

Some of the text has been modified or omitted to make it more relative to office education.

CURRICULUM MODIFICATION

The term *vocational curriculum* can be defined as the organized content of a particular discipline which a student must master to attain an occupational goal. It involves the sum total of all experiences and learning activities encountered in the classroom. A curriculum is concerned with results. It encompasses "what is to be taught" and "what is to be learned" (Stern-Otazo, 1980; Goh & Sitlington, 1983).

Each student has a mental capacity, physical skills, and various needs which vary from one individual to the other. In addition, students exhibit different learning styles. All good teachers recognize this and will work toward developing a classroom environment which is characterized by a deep respect for the learner, acceptance of student, fulfillment of individual needs, and individual development. This is what is meant by the teacher who has become "learner-centered" and not "content-centered" (Pine & Boy, 1977). Jones (1977) eloquently describes recognizing individual worth and individual development as being the basis for curriculum development as follows:

> **Individual development** as a basis for curriculum perspective would lead us to teach discovery of principles and sacredness of the individual personality. It would teach the learners to view themselves as self-actualizing individuals in a setting designed to support and encourage personal development to the ultimate of one's potential. Attempts to improve the local community would center around providing a richer and fuller life for personal growth and development. Good people make good communities, good states, good nations, and a good world. By emphasizing development of individuals, such a curriculum would hope to plant the seed for a better world in the future.

Therefore, all learners should be perceived as very "special" individuals who one day will take their place in society. It is the responsibility of educators to assist **all** learners (in spite of their shortcomings) to become productive members of society. This can be accomplished by helping each student establish attainable career goals and then providing meaningful experiences through which the student can achieve these goals. Every student should be treated with dignity, as an individual who has unique strengths and interests in life. It is not necessary or even realistic to expect every student to do and know all the same things. As stated by Jones (1977), "Learners should become worthwhile persons in their own right,...it is not necessary that they all become miniature images of the same pattern."

Purpose of Curriculum Modification

When working with students with special needs, a learner's curriculum may need to be modified or adjusted to take into account major differences which could be found among these individuals. The term *curriculum modification* can be defined as tailoring an existing curriculum to the unique needs of students as they pursue an occupational goal (Sarkees & Scott, 1985; Goh & Sitlington, 1983). However, it should be strongly emphasized that modifying a curriculum does not mean that an educator should lower or alter the standards of his or her program. What it does mean is that the Admission Review and Dismissal (ARD) Committee (for handicapped students) or coordinated planning team (for disadvantaged and LEP students) determines which essential elements in the regular school curriculum would be appropriate for a student's needs. The *State Board Of Education Rules For Curriculum* offers the following key points (Texas Education Agency, 1985):

1. For students with special needs, school districts shall provide modifications in methodologies, pacing, and materials to ensure that instruction is delivered, as appropriate, in the essential elements.

2. Students with special needs shall be instructed in those same essential elements in a manner appropriate to their needs.

3. School districts shall implement the provisions (under Chapter 75) in a manner which will enable all students to participate actively in a well-balanced curriculum and master, to the best of their abilities, the knowledge, skills, and competencies established through the essential elements.

4. Specialized personnel and regular program personnel shall be jointly responsible for the cooperative delivery of effective instruction in the essential elements, as appropriate.

It is important to re-emphasize that special needs students, as all students, have capabilities which widely vary. The challenge parents, educators, and vocational counselors face is to help each learner reach occupational goals which are within the student's potential.

The Curriculum Modification Process

For the purpose of this overview, the competency-based curriculum modification model has been selected for discussion.

For information regarding the steps involved in the modification process including the establishment of an ARD committee and developing the IEP plans, refer to the 1989 TEA publication, *Office Education Handbook*.

The Competency-Based Curriculum

Over the years, the concept of competency-based curriculum has increased in popularity largely due to the emphasis on **accountability** in education (Choate, et al., 1987). In addition, since the passage of P.L. 94-142, vocational educators have had to adjust their curricula to take into account the capabilities of special needs learners.

The underlying principle behind the competency-based curriculum is to assist the student in becoming a more effective person. This entails helping the student develop skills or competencies which will promote employment opportunities and a higher self-esteem within the student (Brolin, 1976; Lippmann & Porter, 1976). The ability to succeed is what makes competency-based learning so valuable for students with special needs (Kok, 1978). With competency-based learning a student does not have to wait until the end of the program to experience success. The sequential steps called for throughout the program afford the possibility of success on a day-to-day basis (Lippmann & Porter, 1976).

Responsibilities of the Vocational Educator

The primary responsibility of the vocational educator in the curriculum modification process is to help the special needs student establish and reach realistic occupational goals. In an effort to accomplish this, the vocational educator must identify the following (Sarkees & Scott, 1985):

1. Pertinent information about what will be taught in a vocational program.
2. Necessary requirements for program completion.
3. Multiple exit points (jobs that the learner can prepare for in a vocational program).
4. Entry level competencies expected by employers for each of the exit points.

It is also the responsibility of every vocational educator to establish an effective and wholesome learning environment for their students. Providing this environment may involve modifying the vocational facility, equipment, tools and/or instruction. This information will be provided in the following section.

MODIFICATION OF THE LEARNING ENVIRONMENT

The term *learning environment* refers to both the **physical** and **instructional** setting of the vocational classroom/laboratory (Bell, 1984). It is the responsibility of each vocational educator to work at developing a learning environment which will contribute to the overall well-being and success of every student. The key factors found in a wholesome learning environment are those which promote:

1. **Safety, organization, and physical comfort.** In the vocational laboratory, it is absolutely crucial that each student abide by safety rules set by the instructor. In addition, the laboratory should be kept well organized and clean. A laboratory which is safe, well organized, and physically comfortable helps promote high morale and good work habits.

2. **Respect and acceptance**. Within an effective learning environment, students will show respect not only for the instructor but for each other as well. The instructor should be the student's best role model. The care and acceptance given by the instructor to each student (disabled or non disabled) will go a long way in promoting peer acceptance, a positive attitude, and healthy self-esteem.

3. **Discipline.** A wholesome learning environment is one which promotes discipline and a positive self-concept within each student. Inappropriate behavior has the potential to seriously affect classroom safety, morale, and the overall learning process. Ways in which the instructor can help the student modify inappropriate behavior include: (a) utilizing the time-out technique, (b) developing student-teacher contracts, (c) ignoring negative behavior--whenever possible, and (d) rewarding appropriate behavior with approval and praise.

4. **Flexibility**. An effective learning environment is flexible and can adapt to a special student's unique needs (i.e., slower rate of learning, inability to access regular tools/equipment, or remedial needs in reading or math for instance). A flexible environment fosters individualized programs through which a special learner can develop marketable skills for employment.

Modifying Facilities, Equipment, and Tools

In the past, many special needs learners have been denied their basic right to a public education because of architectural barriers, nonadaptive facilities, equipment, and tools (Phelps & Lutz, 1977). However, federal legislation has done a great deal to provide equal access to educational programs for every learner. For example, according to Section 503 of the Rehabilitation Act of 1973, each federally funded program or activity in which a handicapped individual can enroll and profit must be made accessible to the student (Sarkees & Scott, 1985). In addition, the Carl Perkins Act of 1984 has emphasized the importance of providing supplemental services for special needs learners, which include the adaptation of facilities, equipment, curriculum, and instruction (Cobb & Kingburgy, 1985).

MODIFICATION OF INSTRUCTION

The primary purpose of this section is to provide the vocational educator with teaching strategies and techniques that will be useful when instructing students with special needs. It is important to remember that the methods and approaches used by educators when instructing non-special needs students may not be very effective with students with special needs (Gleiss-Monar & Sitlington, 1983). Therefore, individualizing instruction becomes vitally important in the successful instruction of special learners.

Within this section, the following topics will be discussed: (a) learning styles, (b) teaching strategies, (c) remediation techniques, and (d) Brown's 3-Cs Instructional Mode.

Learning Styles

Each special learner has unique needs, and these needs affect how the student can best learn. For example, if a student is blind or has difficulty with "visual" learning, the instructor should stress the learner's sense of sight. Therefore, the manner in which a student with special needs learns ceases to be a preference, but becomes instead a **necessity** (Kok, Jernigan, & Hull, 1978). Further, one of the main philosophies behind individual learning styles is that learning should be a pleasant and successful experience. Educators, therefore, should adjust their style of teaching to allow students the benefit of learning in their preferred manner (Kok, Jernigan, & Hull, 1978).

Identifying a Student's Learning Style.

The following are methods in which an educator can identify a student's learning style:

1. Informal observation. One of the simplest and possibly best ways to identify a student's learning style is through informal observation. By observing the student as he or she negotiates classroom/laboratory learning activities, the educator can collect valuable information with regard to the student's learning style. For example, the educator may observe that a disadvantaged student answers questions in class and does well with hands-on activities but repeatedly fails written exams. If the primary intent of the instruction is to reach vocational skills rather than reading and writing skills, the instructors could modify their style of teaching by allowing the student to take oral and/or hands-on exams (Kok, Jernigan, & Hull, 1978: Sarkees & Scott, 1985).

2. Teacher consultation. Consulting other teachers (i.e., special education teachers, resource room teachers, support personnel, paraprofessionals, and other vocational education teachers) can be an excellent source for information regarding a student's learning style (Sarkees & Scott, 1985).

3. Student/parent interviews. Interviewing the student and student's parents and/or guardians can result in valuable insights as to the student's best learning modes (Sarkees & Scott, 1985).

4. Standardized inventories. Standardized inventories provide an alternative for students who are shy or uncomfortable during a personal interview. Information received from interest, personality, and learning style inventories can provide valuable information with regard to the student's learning style (Kok, Jernigan, & Hull, 1978; Sarkees & Scott, 1985).

DETERMINING LEARNING STYLES

For many years educators have recognized the need for alternative instructional methods and techniques to meet the needs of the variety of students in our heterogeneously grouped classrooms. We have become familiar with a variety of methods and techniques, but, in many cases, their misapplication has proven unproductive. Recognizing and defining the style in which a person learns is as important to the learning process as the diagnostic tests required by a medical doctor are to the healing process. Many teachers share the frustration of knowing that we are failing to meet the needs of some of the students in our classrooms. One reason could be the lack of understanding and accommodating the unique learning styles of our students--particularly those we are not reaching.

The CITE Learning Styles Instrument was formulated by teachers for the use of teachers in determining the styles preferred by their students. The Learning Styles Instrument is divided into three main areas: information gathering/receiving, social work conditions, and expressiveness preference. The Instrument is simple to administer, score, interpret and utilize in accommodating individual differences. It also is an instrument that offers immediate data, as well as accompanying information with suggestions for appropriate implementation. There are provisions being made for scoring, charting, and interpreting by the computer.

If we are to allow for individual differences, we must consider ways of learning working, and reporting as three (3) important areas. In the area of learning, the CITE Learning Styles Instrument investigates five (5) specific subtopics. They are:

1. Auditory Language: the way a student hears words; processing spoken words.

2. Visual Language: the way a student sees words; processing written language.

3. Auditory Numerical: the way a student hears numbers; processing spoken numerical values.

4. Visual Numerical: the way a student sees numbers; processing written numerical values.

5. Auditory-Visual-Kinesthetic: the way a student learns by doing or involvement. Emphasizing the experiencing or manipulative learning style which is almost always accompanied by either auditory stimuli, visual stimuli, or a combination of both.

The area of working considers whether a student likes to work, or learn, in a group or alone. They are appropriately titled as follows:

1. Group learner: A student who likes to work with at least one other person when there is important work to be done.

2. Individual learner: A student who works and thinks best alone. This student is usually a self-starter and frequently finds working with other students distracting.

The area of individual expressiveness considers how a student prefers to express himself. Basically, they fall into one of these two broad categories:

1. Oral expressive: A student who prefers to say what he knows. Usually, answers or explanations are better given orally; however, some students may indicate this preference simply because they are too lazy to write things down.

2. Written expressive: A student who prefers to write down answers or explanations. Students who exhibit a reflective cognitive learning style may prefer this method.

The administration of the CITE Learning Styles Instrument is simple and can be done in a classroom with 30 or 35 students in less than 20 minutes. Students need only to have a pencil and a copy of the CITE Learning Styles Instrument. Directions should make very clear that the statements are not questions with right or wrong answers. They are just statements, and the responses should represent the way the student feels. Emphasize that no grades are given, and, if they are to score it themselves, they will do the actual scoring and charting results. Explain how they are to mark the answers and do the Learning Styles example from the front page of the Instrument. Emphasize that they must make only one choice for each statement, but that they must respond to every statement.

Usually their first choice is the best. Explain that as they read each statement, you will read it aloud. This is to accommodate those who prefer auditory to visual stimuli or for nonreaders, and allow approximately 12 seconds to read and respond to each statement.

Encourage and allow questions from the students if they do not understand. Special solicitations for questions should be extended before the Learning Styles example is done, after it is done, before the first statement from the Instrument is read, after the third statement is read, after the last statement is read, and any other time when the need is apparent. After the Instrument is completed, it is necessary to check for one response to every statement. The students should be asked to put their names on each page of the Instrument, and, if the students are to score their own, the scoring procedure will begin.

The process of scoring the CITE Learning Styles Instrument using the computer is still being worked out. If you are a teacher in the Unified School District 259, computer scoring should be available during the fall of the 1975-76 school year. Presently, the simplest, and perhaps the most meaningful, method of scoring is to allow the students to score their own. Preparing students for this entails writing the names of the nine (9) construct areas the Instrument covers on the chalkboard or overhead projector and reading these names. The procedures listed here have been tried successfully in other classrooms and are easy to follow. Each student should be given pages headed "Learning Styles Worksheet," and "Learning Style Chart." The procedure for completing the worksheet follows:

1. The numbers listed under each of the nine (9) construct areas designate the statements on the Instrument which measure that particular style. For example, statements 5, 13, 21, 29, 37 all measure the visual language style of learning.

2. To determine the score for each style, do the following:
   a. Look up the response given for each statement and write it in the right-hand column.
   b. Total the numbers.
   c. Multiply the sum of the numbers by two (2).

   This is the score:

   Example:

   Visual Language

   5 - 3

   13 - 4

21 - 4 Suppose these are the
29 - 3 responses given on the
37 - 4 Learning Style Instrument

TOTAL 18 X 2 = 36

3. Figure the score for each of the nine (9) areas. If the score is 33 through 40, the style is considered to be a major learning style for the student. From 20 through 32 is a minor learning style for the student, and below 20 indicates the student uses this style to a negligible extent.

After computing each score, the students graph the results on the page headed "Learning Style Chart." The completed sample of the "Learning Style Chart" is on the following page.

Style usage may be defined as:

1. Major: The student prefers this mode of learning, feels comfortable with it, and uses it for important (to the student) learning. A student does not necessarily have one and only one preferred style.

2. Minor: The student uses this mode but usually as a second choice or in conjunction with other learning styles.

3. Negligible: The student prefers not to use this if other choices are available.

The following are descriptions of learning styles which can be found in every learner to a major, minor, or negligible extent. These descriptions will help you evaluate a student's learning style on the basis of observation. The CITE Learning Styles Instrument is a tool which facilitates the evaluation of these learning styles. Each of the nine (9) style areas of the CITE Instrument are described here as if the student were a major in that particular style.

1. Auditory Language: This is the student who learns from hearing words spoken. You may hear him vocalizing or see his lips or throat moving as he reads, particularly when he is striving to understand new material. He will be more capable of understanding and remembering words or facts that he could only have learned by hearing.

2. Visual Language: This is the student who learns well from seeing words in books, on the chalkboard, charts, or workbooks. He may even write words down that are given to him orally, in order to learn by seeing them on paper. He remembers and uses information better if he has read it.

3. Auditory Numerical: This student learns from hearing numbers and oral explanations. He may remember phone and locker numbers with ease, and be successful with oral numbers, games, and puzzles. He may do just about as well without his math book, for written materials are not as important. He can probably work problems in his head. You may hear him saying numbers to himself or see his lips moving as he reads a problem.

4. Visual Numerical: This student has to see numbers on the board, in a book, or on a paper, in order to work with them. He is more likely to remember and understand math facts if he has seen them. He doesn't seem to need as much oral explanation.

5. Auditory-Visual-Kinesthetic Combination: The A-V-K student learns best by experience--doing, self-involvement. He definitely needs a combination of stimuli. The manipulation of material along with the accompanying sight and sounds (words and numbers seen and spoken) will make a big difference to him. He may not seem to be able to understand or be able to keep his mind on work unless he is totally involved. He seeks to handle, touch, and work with what he is learning. Sometimes just writing or a symbolic wiggling of the fingers is a symptom of the A-V-K learner.

6. Individual Learner: This student gets more work done alone. He thinks best and remembers more when he has learned by himself. He cares more for his own opinions than for the ideas of others. You will not have much trouble keeping this student from over-socializing during class.

7. Group Learner: This student strives to study with at least one other student, and he will not get as much done alone. He values others' opinions and preferences. Group interaction increases his learning and later recognition of facts. Class observation will quickly reveal how important socializing is to him.

8. Oral Expressive: This student can easily tell you what he knows. He talks fluently, comfortably and seems to be able to say what he means. You may find he knows more than his tests show, after talking to him about his work. He is probably not shy about giving reports or talking to the teacher or classmates. The muscular

coordination involved in writing may be difficult for him. Organizing and putting thoughts on paper may be a too slow and tedious task for this student.

9. Written Expressive: This student can write fluent essays and good answers on tests to show what he knows. He feels less comfortable, perhaps even stupid, when he has to give oral answers. His thoughts are better organized on paper than when they are given orally.

The CITE Learning Styles Instrument is an attempt to help teachers become more familiar with their student's preference for learning and to make teachers more aware of the need to accommodate the variety of preferences exhibited by any class of students. Should this instrument show no significant data on a student, or should the teacher feel the data is not accurate, then further investigation should be made. Private talks between the teacher and student should follow. The student should be given choices of a variety of ways of learning and these choices noted on the student's records and compared with his/her Learning Style Chart. Personal observation by the teacher is also a helpful way of determining the student's learning style. If adequate diagnostic or counseling service is available, the use of these services will help in determining learning style. Each of these other methods mentioned requires a great deal of time, effort, expertise, and one-to-one work. Sometimes the classroom teacher runs short on one or more of these. That is where the CITE Learning Styles Instrument is meant to help.

LEARNING STYLE

INSTRUCTIONS: **Place all answers on the answer sheet. Circle the number which agrees with how you feel about the statement. A 4 indicates you agree that the statement is most like you, and a 1 indicates that the statement is least like you.**

1. When I make things for my studies, I remember what I have learned better.

2. Written assignments are easy for me to do.

3. I learn better if someone reads a book to me than if I read silently to myself.

4. I learn best when I study alone.

5. Having assignment directions written on the board makes them easier to understand.

6. It's harder for me to do a written assignment than an oral one.

7. When I do math problems in my head, I say the numbers to myself.

8. If I need help in the subject, I will ask a classmate for help.

9. I understand a math problem that is written down better than one I hear.

10. I don't mind doing written assignments.

11. I remember things I hear better than I read.

12. I remember more of what I learn if I learn it when I am alone.

13. I would rather read a story than listen to it read.

14. If feel like I talk smarter than I write.

15. If someone tells me three numbers to add I can usually get the right answer without writing them down.

16. I like to work in a group, because I learn from the others in my group.

17. Written math problems are easier for me to do than oral ones.

18. Writing a spelling word several times helps me remember it better.

19. I find it easier to remember what I have heard than what I have read.

20. It is more fun to learn with classmates at first, but it is hard to study with them.

21. I like written directions better than spoken ones.

22. If homework were oral, I would do it all.

23. When I hear a phone number, I can remember it without writing it down.

24. I get more work done when I work with someone.

25. Seeing a number makes more sense to me than hearing a number.

26. I like to do things like simple repairs or crafts with my hands.

27. The things I write on paper sound better than when I say them.

28. I study best when no one is around to talk or listen to.

29. I would rather read things in a book than have the teacher tell me about them.

30. Speaking is a better way than writing if you want someone to understand what you really mean.

31. When I have a written math problem to do, I say it to myself to understand it better.

32. I can learn more about a subject if I am with a small group of students.

33. Seeing the price of something written down is easier for me to understand than having someone tell me the price.

34. I like to make things with my hands.

35. I like tests that call for sentence completion or written answers.

36. I understand more from a class discussion than from reading about a subject.

37. Spelling and grammar rules make it hard for me to say what I want to in writing.

38. It makes it easier when I say the numbers of a problem to myself as I work it out.

39. I like to study with other people.

40. When the teachers says a number, I really don't understand it until I see it written down.

41. I understand what I have learned better when I am involved in making something for the subject.

42. Sometimes I say dumb things, but writing gives me time to correct myself.

43. I do well on tests if they are about things I hear in class.

44. I can't think as well when I work with someone else as when I work alone.

LEARNING STYLES ANSWER SHEET

NAME: **DATE:** **GRADE**

Circle the number which agrees with how you feel about the statement. A 4 indicates you agree that the statement is most like you, and a 1 indicates that the statement is least like you.

	LEAST LIKE ME			**MOST LIKE ME**
1.	1	2	3	4
2.	1	2	3	4
3.	1	2	3	4
4.	1	2	3	4
5.	1	2	3	4
6.	1	2	3	4
7.	1	2	3	4
8.	1	2	3	4
9.	1	2	3	4
10.	1	2	3	4
11.	1	2	3	4
12.	1	2	3	4
13.	1	2	3	4
14.	1	2	3	4
15.	1	2	3	4
16.	1	2	3	4
17.	1	2	3	4
18.	1	2	3	4
19.	1	2	3	4

20.	1	2	3	4
21.	1	2	3	4
22.	1	2	3	4
23.	1	2	3	4
24.	1	2	3	4
25.	1	2	3	4
26.	1	2	3	4
27.	1	2	3	4
28.	1	2	3	4
29.	1	2	3	4
30.	1	2	3	4
31.	1	2	3	4
32.	1	2	3	4
33.	1	2	3	4
34.	1	2	3	4
35.	1	2	3	4
36.	1	2	3	4
37.	1	2	3	4
38.	1	2	3	4
39.	1	2	3	4
40.	1	2	3	4
41.	1	2	3	4
42.	1	2	3	4
43.	1	2	3	4
44.	1	2	3	4

LEARNING STYLES WORKSHEET

VISUAL LANGUAGE

5 _____

13 _____

21 _____

29 _____

37 _____

Total _____ x 2 = _____ (Score)

VISUAL NUMERICAL

9 _____

17 _____

25 _____

33 _____

41 _____

Total _____ x 2 = _____ (Score)

AUDITORY LANGUAGE

3 _____

11 _____

19 _____

36 _____

44 _____

Total _____ x 2 = _____ (Score)

AUDITORY NUMERICAL

7 _____

15 _____

23 _____

31 _____

39 _____

Total _____ x 2 = _____ (Score)

KINESTHETIC-TACTILE

1 _____

18 _____

26 _____

34 _____

42 _____

Total _____ x 2 = _____ (Score)

SOCIAL INDIVIDUAL

4 _____

12 _____

20 _____

28 _____

45 _____

Total _____ x 2 = _____ (Score)

SOCIAL GROUP

8 _____

16 _____

24 _____

32 _____

40 _____

Total _____ x 2 = _____ (Score)

EXPRESSIVE-WRITTEN

2 _____

10 _____

27 _____

35 _____

43 _____

Total _____ x 2 = _____ (Score)

EXPRESSIVE-ORAL

6 _____

14 _____

22 _____

30 _____

38 _____

Total _____ x 2 = _____ (Score)

33-40 Major Learning Style ____________________

20-32 Minor Learning Style ____________________

20 Negligible ________________________________

Teaching Strategies

Once the student's vocational goals, learning capability, and preferred learning style have been identified, the educator can begin to experiment with a variety of teaching techniques and instructional materials. When determining the teaching technique and instructional material best suited to meet a student's unique needs, it is important for the educator to be patient, open-minded, and flexible. Not every instructional technique and/or material can be used successfully with each learner (Sarkees & Scott, 1985). In addition, the educator should not hesitate to enlist the support of other instructors, school counselors, student aides, paraprofessionals, volunteers from the community, itinerant teachers, and/or interpreters. This pooling of efforts can result in increased student learning because of the variety of approaches and personal attention which can be brought to the classroom or laboratory (Harrington & Fardig, 1982).

The following are general guidelines and instructional techniques which an educator can use to help meet a special needs learner's unique needs and learning style:

1. Orientation. Students with special needs may need additional orientation with regard to: (a) the relevancy of their individualized goals, (b) class procedures, (c) safety, etc.

2. Flexible pacing. Students with special needs can exhibit different rates of learning. The educator should provide flexibility in pacing of instruction and assignments to meet the various needs of learners. In general, students with special needs should be individually paced to maintain their progress and interest, yet avoid the frustrations and failure undue pressure may cause (Harrington & Fardig, 1982; Sarkees & Scott, 1985).

3. Demonstration. Utilization of the demonstration method can be very effective in introducing a new skill to a learner with special needs.

4. Breaking material into small distinct steps. As a general rule, it is important for the educator to break a learning concept into small distinct steps. In this way, the educator can best identify where the student is experiencing difficulty.

5. Positive environment and feedback. In general, students with special needs lack confidence and a positive self-concept. This is primarily due to their not having had much success in life. In addition, the few successes special learners do have usually result in little, if any, positive reinforcement (i.e., praise, reward, and/or encouragement). Therefore, it is incumbent upon educators to create a positive, nonthreatening learning environment for their students and to make generous use

of positive feedback when the student experiences success. Constructive criticism should not be avoided; however, it should be given in a positive manner (i.e, students should understand that their behavior or product is what's being criticized and not their worth as a human being). Finally, all students must learn that mistakes and constructive criticism are a normal and expected part of life (Harrington & Fardig, 1982).

6. Use of peer tutors, college students, and volunteers. Use of peer tutors, college students, and volunteers can greatly assist a vocational educator's work with special learners by: (a) helping with individualized instruction, (b) providing positive role models, (c) increasing student participation, (d) increasing the special learner's success experiences, (e) increasing the student's confidence and self-esteem, and (f) improving the special learner's social and academic skills (Asselin & Anderson, 1986). In addition, peer tutors, college students, and volunteers can receive teaching experience and the satisfaction of helping individuals with special needs progress.

7. Flexible grouping. The educator can integrate special needs learners into groups of various sizes (according to the student's goals, interests, or ability level) and utilize peer tutors, college students, and volunteers for assistance. According to Sarkees & Scott, grouping students has the following advantages: (a) it allows the teacher more time to work among the students, (b) it allows the teacher to individualize instruction, tasks, and assignments to meet the needs of students in a specific group, (c) it provides special needs learners with an opportunity to work with peers and establish positive interpersonal and working relationships with them, (d) it serves as a motivating factor for special needs learners because the individualized nature of the group work does not become threatening or frustrating but allows students an opportunity to work at their own pace through their strongest learning style, (e) it allows teachers to arrange for instruction for the entire class, small group discussions, project groups, and small remedial sessions so that instruction will be diversified and more meaningful for all students; and (f) it allows the teacher to modify the task or assignment for a small group of students with specific needs, as in the case of learners who have a physical disability (Sarkees & Scott, 1985).

8. Providing field trips and job site visits. Scheduled field trips and job site visits can give all learners a realistic first-hand look into the real world of work. By "shadowing" workers in a particular occupational area, students can gain helpful insights into their own career decision. In addition, a field trip or job site visit can be very motivational in that the student can readily observe how his/her vocational training will be used in the world of work (Sarkees & Scott, 1985).

9. Use of media. Utilizing media can embellish instruction by: (a) assisting the teacher in presenting the proficiency or skill requirements for a specific job, (b) reinforcing concepts presented in a classroom, laboratory, or demonstration activity, (c) providing a vehicle for special needs learners to show what they have learned, (d) providing a valuable source of remedial assistance, (e) providing simulated learning experiences, (f) allowing special needs students to learn through their strongest style, and (g) adding variety to the instructional program. Examples of media include: computer assisted instruction (CAI), 16 mm films, film strips, flip charts, overhead transparencies, tape recorders, records, posters, magazines, and diagrams (Sarkees & Scott, 1985).

10. Use of student-teacher contracts. Student-teacher contracts can be excellent tools in helping learners with special needs achieve their vocational goals. The following guidelines should be used in developing and implementing a student-teacher contract: (a) decide on the task or project, (b) specifically state the requirements, (c) determine the minimum acceptable accuracy, (d) set a time limit--initially, short assignments and short time periods are usually best, (e) identify consequences, (f) discuss the contract with student and support personnel, (g) have all parties sign the contract, (h) positive reinforcement should be given if the terms of the contract are satisfactorily met, (i) uncompleted contracts should be analyzed by the teacher and student to determine the causes, and (j) develop new contracts cooperatively (Sarkees & Scott, 1985).

The following is a list of specific teaching strategies which educators can utilize when addressing the unique needs of handicapped students (Sarkees & Scott, 1985; Stern & Gathercoal, 1986; Tindall; 1980):

Important Note: It is very important to note that many of these teaching strategies could be used for all students. Appearing later in this Overview is a listing of instruction strategies which could be generic to all special needs students.

Instructing Students Who Are Mentally Impaired

Involve as many different senses as possible in the learning process.

Use concrete specific terms rather than abstract terms. If necessary, have the student repeat the necessary information to you.

When giving written directions use lists instead of paragraphs. With regard to the student who can barely read, contact the remedial reading staff and arrange reading instruction. This instruction should focus on required reading for your course and that which is vital for employment.

Teach by demonstration (whenever possible). Don't hesitate to use hand-over-hand assistance in demonstrating how to use a tool or machine.

Allow time to practice machine or tool processes.

Break down complex operations into smaller tasks.

With regard to feedback, let the learner know what is wanted, and whether or not the student is achieving it. Give lots of positive reinforcement and encouragement. Nonverbal feedback is also helpful (i.e., touching the student or task, pointing, blocking or stopping an error as it is developing, and guiding the learner's movements). In addition, provide specific feedback with regard to the student's work. For example, the educator should say, "This piece was cut exactly to the right size," or "You put these two parts together correctly," or use Mark Gold's expression "Try another way" (Gold, 1975).

Build the student's confidence by: (a) utilizing activities that will assure success, (b) assigning special tasks which will communicate with the educator's confidence in the student, (c) giving students an opportunity to correct their work and hand in a good project or assignment, and (d) displaying the student's good work.

In helping students with their ability to make correct discriminations, utilize Gold's "match to sample" technique in which the student is provided an example and a number of choices. The student will choose the correct alternative based upon the characteristics of the sample (Gold & Scott, 1971).

With regard to helping the student make correct discriminations when there are minimal differences between the stimuli, it may be necessary to: (a) present the choices in an easy form at first, (b) exaggerate attributes, (c) make the choices gradually harder, or (d) add and fade out color cue, add and then gradually remove large cue differences, or combine these two approaches.

Retention/memory can be improved by: (a) being systematic and presenting one new piece of learning at a time, (b) relating new material to familiar material, and keeping it practical and concrete, and (c) utilizing training techniques such as the total task method, chaining, modeling/demonstrating, and the structured overview (see Tindalls' Puzzled About Educating Special Needs Students).

"Generalizing," or having the student apply what has been learned to the contexts, can be improved by: (a) using examples from different relevant contexts and (b) practicing in settings similar to or exactly like those that will be encountered on the job.

Instructing Students Who Are Hearing-Impaired

In private, discuss with the student his/her ability to communicate with you (lip/speech reading, use of hearing aid, writing, signing, and total communication). An open discussion with the student which demonstrates your concern as an educator is an excellent beginning in building rapport.

Body language communicates messages too. Remember not to give mixed messages with your body language. Also, be alert to the body message the student is giving you (i.e., is he/she communicating tension, nervousness, avoidance, or confusion?).

If you will be working with an interpreter, do not instruct the deaf student as if he/she were a third party. Speak directly to the student. Also, remember that the interpreter is ethically bound to interpret everything you say. Therefore, sensitive or other issues concerning the student is best addressed in a meeting before or after class. If you are using media where the room must be darkened, focus a small lamp on the interpreter.

Maintain good eye contact with the student while speaking.

Speak slowly and clearly, pronouncing each word, but without exaggerating or over pronouncing.

Do not stand in front of a window while speaking. The light should be shining on your face and not the student's.

Try to rephrase a thought rather than saying the same words over again.

Encourage the student to read ahead on class material.

Try to keep the noise level down as much as possible in the class/laboratory.

Utilize handouts, the chalkboard, and other media.

Install a light to indicate when dangerous machinery is on.

Instructing Students Who Are Speech-Impaired

Always maintain eye contact and nod your head while the student is talking. This will help the student build confidence.

Work cooperatively with speech therapist and/or communication specialist to determine which technique will help most in assisting these students to communicate more effectively.

Encourage peer tutoring and small group activities to help the speech-impaired student develop interpersonal relationships with the other students.

Always allow sufficient time for the student to complete his/her sentence.

Try not to act uncomfortable when these individuals are communicating with you (i.e., discontinuing eye contact, shifting your position, clearing your throat). Your discomfort can be very discouraging to the student.

Do not require these individuals to present oral reports until they feel comfortable in the classroom environment.

Model correct sentence structure for the speech-impaired student so he/she can follow your example.

Develop a list of technical terms used in your class and share these terms with the speech specialist to help the student become more confident pronouncing terms used in class.

Instructing Students Who Are Visually Impaired

Orient the student to the classroom or laboratory before the course begins. Consistency and orderliness in the physical environment is very important to the visually impaired student.

Arrange seating so the blind student will be able to hear the instruction and to allow for the best distance and lighting conditions for the partially sighted student.

Provide as many opportunities as possible for the visually impaired student to observe closely or to touch the materials.

Give materials and handouts to the student ahead of time. Also, a student peer can assist the visually impaired student by making a carbon copy or a photocopy of his/her notes. Also, when possible, the educator can make a copy of his/her teaching notes. In this way, the visually impaired student can review the materials with a tutor or have them transcribed into braille or taped.

It is important to gain and maintain the student's attention. Approval or disapprova will need to be verbalized.

Remember there is no need to talk louder to a visually impaired student.

Rehabilitation counselors or special needs teachers can be useful resources in helping the student use commercial or modified learning aids or tools.

Tests may need to be prepared in large print, braille, on cassette tapes, or converted into exercises using the sense of touch. Also, it may be necessary to allow the studen extra time to complete the test.

The tape recorder is the most frequently used technique for notetaking and preparing modified learning materials for the visually impaired student.

The following is a sample of specially designed machines now available for the visually impaired student: (a) OPTACON (Optical to Tacile Converter) allows students to read printed material, (b) STEREO-TONER is similar to the OPTACON but converts the printed word into a tone pattern, (c) OPTOPHONE and VISOTACTOR convert print into sound, and (d) KURZWEL READING MACHINE which converts standard English text on a computer into easily comprehended speech.

A number of general tools or aids which can assist the student in reading or writing lessons for vocational courses follow: (a) braille, (b) large print, (c) tape recorders, (d) talking books, (e) raised letters, (f) slate and stylus (used to make notes), (g) braille writer (a 6-key manually operated machine), (h) typewriters, (i) braille verifier (types braille and regular copy simultaneously), and (j) signature guides.

Aids for mathematics and computer programming courses follow: (a) abacus design for the blind, (b) raised clock faces, (c) wire geometrical forms, (d) braille rulers, (e) raised-line checkbooks, (f) raised-line boards, (g) braille dominoes, (h) braille flash cards, (i) cubes with raised braille dots used for simple mathematical problems, (j) raised-line paper or graphs, (k) computer terminals that use braille printers, or those that type braille and conventional type simultaneously, and (l) talking calculators.

Aids used frequently in other vocational courses include: (a) braille maps, charts, diagrams, (b) self-threading needles, (c) wooden or cardboard models of specimens that other students see through microscopes, (d) braille micrometers and other shop tools that have special raised markings, (e) braille demo tapes to mark lab equipment and models, (f) light probes with audible sounds that check the operating status of machines, and (g) guides or templates to help students align objects properly.

Instructing Students Who Are Seriously Emotionally Disturbed

Consult with the student's parents, special education teacher, or counselor to determine whether any particular teaching techniques will help or hinder learning.

Try to understand the student. Disturbing behaviors are the outward sign of inner turmoil.

Go easy on bad days and avoid direct confrontations that would aggravate the situation.

Communicate acceptance to the student and a willingness to help him or her succeed in class.

Provide immediate feedback and reinforcement.

Establishing a rapport and trust with the student is important.

In the beginning of the semester, help the student gain confidence by giving him or her lessons in which success can be achieved in a series of small steps.

A measure of privacy when the student attempts a new task can ease his or her embarrassment at any awkwardness or ineptness.

Allow the student to correct mistakes prior to turning in an assignment or project to ease any pressure.

Help the student not to overreact to failure and praise him or her for continuing to try.

Cue appropriate behavior in a quiet, unemotional manner.

In resolving discipline problems: (a) do so in privacy, (b) focus on objective facts in a calm, supportive tone, (c) actively listen to the student, (d) after listening to the student, reflect on what has been said by telling the student what you've heard, (e) ask the student if he or she has any ideas about solving the problem (encourage the student to be specific), and (f) conclude with a clear understanding of the changes, time frame, and benefits which are expected.

In handling aggressive behavior: (a) try to remain calm and model the controlled behavior which you desire, (b) intervene by either separating the individuals involved and having them work on another activity or having them take a time-out in separate corners of the room, (c) if necessary, send an uninvolved student to the office to get help, either in talking to the students or in managing the class while the teacher talks to them, and (d) return to normal classroom procedure as quickly as possible.

Access professional colleagues in special education evaluation, counselling, or therapy when the student's behavior appears to be in need of additional attention.

Instructing Students Who Are Orthopedically Impaired

In general, students with physical handicaps will be intellectually capable and able to participate in vocational programs.

Make the necessary modifications in classrooms, laboratories, equipment, building accessibility, and lavatories.

For notetaking the student can: (a) use a tape recorder, (b) have a classmate slip a carbon copy into his/her notebook to duplicate notes, and/or (c) have the instructor prepare an outline of the lecture.

For exams the instructor can: (a) give oral exams, (b) have the student dictate answers into a tape recorder or to another student, or (c) utilize a typewriter/computer if the student is able to type/keyboard.

Give the student more time to complete homework assignments. Also, giving the student advance notification of assignments is helpful.

In the laboratory, pair the student with one or more capable students in the class.

Enlarged copies of frequently used charts and diagrams posted near the student's desk eliminates the necessity of paging through a book.

Instructing Students Who Are Other Health-Impaired

Allow the students sufficient time for rest.

Seat the student in the most convenient place for easy access to necessary facilities (hall, lavatory, chalkboard, laboratory work stations).

Allow the students to work on program requirements at his or her own pace.

Tape lectures so the student can listen to them at home.

Work cooperatively with the health team in order to learn more about the student's special needs.

Utilize community resources personnel (social workers and itinerant teachers for home-bound students) for delivery of materials, assignments, and handouts.

Instructing Students Who Have Specific Learning Disabilities

Use visuals and demonstrations as often as possible.

Use concrete examples whenever possible.

Provide student with an outline of what will be covered in class.

Make sure all printed materials are clear and readable.

If the student has a visual perception problem, allow him or her to tape-record assignments.

Allow students to take tests orally or in a mode that complements their performance.

Present new information in small amounts.

Make sure that writing assignments are relevant to the content of the program.

Allow students a longer period of time to complete assignments, if necessary.

List assignments in steps.

Task analysis can be used to lower the frustration level of these learners.

Programmed instruction materials can be very effective with these learners.

The following is a list of specific teaching strategies which can be very useful when working with students who have limited English proficiency (Sarkees & Scott, 1985):

Recognize the student's cultural background and allow for the student's individual differences.

Encourage these students to bring dictionaries to class.

Use demonstrations and hands-on experience as much as possible.

Speak slowly and use simple vocabulary and grammar.

Use bright felt tip markers to mark important words, passages, or illustrations.

If possible, use a translator for important concepts.

Work closely with LEP support personnel.

Keep homework assignments short.

Check for comprehension by asking the student what you have said.

Use simple sentences when writing test items so the student can concentrate on answering the question rather than deciphering it.

And finally, with regard to the disadvantaged population, typically these individuals dislike school, lack motivation, and have a low self-concept or esteem. Therefore, an educator's personal commitment and high expectations for the student may be two of the biggest single factors which will make a positive difference in this individual's life. Additionally, an educator's good example (i.e., being patient, understanding, well organized, and a good manager) can be extremely valuable in motivating and positively shaping the student's behavior (Baca, 1981). Vocational education can offer a great deal to the disadvantaged student in terms of teaching academic and social skills relative to the student's potential employment (Baca, 1981). The following are additional techniques or teaching strategies which can be very useful when working with disadvantaged students (Baca, 1981):

The educator should seek to understand the student's educational and social background through: (a) assessment information, (b) interaction with former teachers, (c) discussions with counselors, and (d) visits with parents to ascertain the student's social limitations and home situation.

Basic math, communication, and social skills should be reinforced. Math skills can be reinforced through hands-on learning activities. Communication skills can be improved by tactfully correcting poor grammar, when appropriate, and by providing resources that encourage reading in job-related interests. Social skills such as getting along with people, grooming, proper dress, and respect for property and authority should be reinforced on a continual basis.

The importance of finishing school should be continually stressed. Relate acquisition of job skills to earn income.

Reinforce the student's feelings of self-worth by having high expectations for the student and by providing immediate reinforcement for work done well.

Simulate realistic job situations. All classroom and laboratory experiences should relate to employment in the occupation being studied.

Disadvantaged students (as all students) will typically react to the learning environment in a responsible and mature manner when they are treated with respect and as adults by the educator.

Classroom organization and discipline (being firm but not overbearing) are especially important. Generally, disadvantaged students want and need structure and discipline within their lives. Usually, these individuals will be responsive to and respect teachers who are firm, but sensitive.

Help the student develop employability and job-coping skills (i.e., skills associated with finding, applying for, and retaining a job).

Help the student establish good work habits by keeping him or her involved with meaningful learning experiences. Each activity should have concrete learning objectives.

Disadvantaged students may need more encouragement to stay on task; however, they still should be required to complete all assignments (just as they will be required to do on the job).

Present instructions and information in clear, logical steps--building from the simple to the complex.

Technical terms should be communicated clearly and concisely and written in language which the students will understand.

Incorporate a variety of instructional methods in the curriculum (i.e., demonstrations, resource personnel, field trips, peer tutors, role playing, audio-visual aids, and on-site work experiences).

Present supplemental materials when appropriate. If such material is relevant to the acquisition of job skills, the student will not be humiliated by simplified material.

Highlight important parts of the student's text with a light marker to prevent the student from feeling overwhelmed with a larger volume of reading material.

Progress charts can be utilized to motivate disadvantaged students to master new skills.

Utilize flash cards (teacher-made or commercial) to reinforce new terms and the use of tools and equipment.

When teaching special needs students, it is very important that instructors do not limit their instructional techniques. Therefore, the following abstract of instructional techniques or strategies has been prepared which could be considered generic to all special needs populations.

- Involve as many different senses as possible
- Use concrete terms
- Have students repeat important information
- Use lists rather than paragraphs for written directions
- Teach by demonstration
- Use hand-over-hand assistance when necessary
- Allow practice time
- Break complex operations into smaller tasks
- Provide immediate feedback
- Build confidence

- Help student make correct discriminations
- Help students with their retention/memory
- Help student generalize knowledge
- Build rapport

- Use appropriate body language
- Use appropriate techniques when working with an interpreter

- Maintain good eye contact
- Speak slowly and clearly
- Rephrase thoughts when necessary
- Encourage the student to read ahead
- Keep the noise level down
- Utilize various forms of media
- Use lights to indicate when dangerous machinery is on
- Work cooperatively with therapists
- Encourage peer tutoring
- Try not to act uncomfortable around special needs students
- Help students feel comfortable
- Model correct sentence structure
- Develop a list of technical terms for students and/or therapists

- Orient students before the course begins
- Provide handouts ahead of time
- Maintain student's attention
- Use tape recorders for note taking
- Try to understand the student
- Communicate acceptance
- Develop success experiences for the student

- Use appropriate behavioral management techniques
- Facilitate the students with their notetaking
- Facilitate the students with exams

- Pair students
- Enlarge charts and diagrams
- Use clear readable visuals frequently

- Provide an outline of material which is being taught

- Writing assignments should be relevant
- Use task analysis when necessary
- Allow for individual differences
- Encourage students to bring a dictionary
- Use felt-tip marker to highlight important parts
- Do not make homework assignments too lengthy
- Use simple sentences when writing test items
- Reinforce basic education and work skills
- Reinforce the importance of finishing school
- Reinforce the student's feelings of self-worth

- Simulate realistic job situations
- Treat all students with respect and dignity
- Provide structure and organization
- Utilize progress charts
- Utilize flash cards

Remediation in the Basic Education Skills

It is very important to note that some students may need to acquire one or more basic education skills (i.e., mathematics, reading, writing, speaking, listening, interpersonal relations, and/or reasoning skills) to succeed in a vocational program. In addition, many employers will not hire an individual if he or she lacks these skills. Therefore, instruction in basic education skills may be necessary by the vocational educator. For information concerning basic or generalized skills instruction, see Module 8.

Brown's 3-C Model

Brown's 3-C Model helps tie together many of the educational aspects discussed in this Overview. In general, Brown suggests that when delivering instruction to learners with special needs, the instructor can enhance the student's success rate and reduce feelings of frustration by considering the following 3-Cs of instruction: (a) correction, (b) compensation, and (c) circumvention (Brown & Dayser, 1982):

Correction. Providing feedback when the student's skills are being developed, thereby correcting inappropriate behaviors immediately after they appear. Employing remedial reading and math services to enhance the student's ability to function within the program.

Compensation. Helping the student realize that each task represents only one of many activities contained in the course and that weaknesses in one area can often be offset by strengths in other areas. It should be communicated to the student that some tasks are inherently difficult and that he/she should not expect to achieve success immediately. Further efforts to compensate for the student would be to modify or adjust the delivery of instruction to extend over segments of several class periods. In addition, reinforcement during the early stages of instruction should be amply provided.

Note: Basically, "compensation" involves the instructor's modifications to the curriculum, learning environment, and instruction which has been discussed in this Overview.

Circumvention. If the vocational program is way out of reach for a student, for example, due to a course requirement of a relatively high level of reading skill, it may become necessary for the student to "circumvent" this difficulty by discussing alternate training programs with a vocational counselor.

Summary

Modification of curriculum, learning environment, and instruction can be an important key to successful employment training for special needs students. It requires that the instructor know his/her content completely, but the benefits to all students will likely be extraordinary.

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COMPLIANCE STATEMENT

TITLE VI, CIVIL RIGHTS ACT OF 1964; THE MODIFIED COURT ORDER, CIVIL ACTION 5281, FEDERAL DISTRICT COURT, EASTERN DISTRICT OF TEXAS, TYLER DIVISION

Reviews of local education agencies pertaining to compliance with Title VI Civil Rights Act of 1964 and with specific requirements of the Modified Court Order, Civil Action No. 5281, Federal District Court, Eastern District of Texas, Tyler Division are conducted periodically by staff representatives of the Texas Education Agency. These reviews cover at least the following policies and practices:

(1) acceptance policies on student transfers from other school districts;

(2) operation of school bus routes or runs on a non-segregated basis;

(3) nondiscrimination in extracurricular activities and the use of school facilities;

(4) nondiscriminatory practices in the hiring, assigning, promoting, paying, demoting, reassigning, or dismissing of faculty and staff members who work with children;

(5) enrollment and assignment of students without discrimination on the basis of race, color, or national origin;

(6) nondiscriminatory practices relating to the use of a student's first language; and

(7) evidence of published procedures for hearing complaints and grievances.

In addition to conducting reviews, the Texas Education Agency staff representatives check complaints of discrimination made by a citizen or citizens residing in a school district where it is alleged discriminatory practices have occurred or are occurring.

Where a violation of Title VI of the Civil Rights Act is found, the findings are reported to the Office for Civil Rights, Department of Health, Education and Welfare.

If there is a direct violation of the Court Order in Civil Action No. 5281 that cannot be cleared through negotiation, the sanctions required by the Court Order are applied.

TITLE VII, CIVIL RIGHTS ACT OF 1964; EXECUTIVE ORDERS 11246 AND 11375; TITLE IX, 1973 EDUCATION AMENDMENTS; REHABILITATION ACT OF 1973 AS AMENDED; 1974 AMENDMENTS TO THE WAGE-HOUR LAW EXPANDING THE AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967; AND VIETNAM ERA VETERANS READJUSTMENT ASSISTANCE ACT OF 1972 AS AMENDED IN 1974.

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